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NAVAL PERSONNEL AND TRAINING RESEARCH LABORATORY

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DESIGN AND FLEET TRIAL OF AUTOMATED PERFORMANCE EVALUATION FORMS FOR TWO PAY GRADE GROUPS: E5-E6 AND E1-E4

David W. Robertson
Marjorie H. Royle
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NPTRL

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SUMMARY

A. Problem and Background

The traditional method of acquiring on-job performance evaluation marks for enlisted personnel is deficient in two important respects: (1) the scales do not adequately differentiate among actual levels of ratee performance, and (2) the manual forms and procedures do not permit timely processing and application of the data for important individual personnel actions (e.g., advancement, assignment, and quality retention).

In 1968 the Navy began its transition from a manual to an automated system, starting with the development and implementation of an Optical Mark Reader (OMR) document for the top three enlisted Pay Grades, E-7/8/9. This report describes the development of new marking scales for two other Pay Grade groups, 5-6 and 1-4. Although automated processing equipment was used, the primary thrust of the project was on substantive, rather than hardware, considerations. The purpose was to reduce inflation of marks and to achieve greater differentiation of levels of performance among ratees by designing new formats tailored to the specific pay grade groups.

B. Approach

Alternative marking scales and coding procedures for each pay grade group were experimentally administered to a fleet sample. Two alternative Optical Character Reader (OCR) forms, a mark-sense and a character-sense mode, were used to test the automated capability.

C. Findings, Conclusions, and Recommendations

1. All experimental forms provided distributions of marks substantially more discriminating than the present operational form, especially for the Pay Grade 5-6 group. Of special concern was the inflationary and stultifying effect of the present coding procedure (1.0-4.0), even on the new forms.

2. Preparation time, discrepancy rate, and processing time were much higher for OCR than OMR type documents. The use of a separate OCR document for each individual ratee does not appear to be within the present data processing capabilities of the Bureau of Personnel.

3. Specific recommendations are provided for substantially improving both the source document design and the system design.

This subproject completes the source document phase of the development of the Enlisted Automated Performance Evaluation System. The data presented indicate that the forms and procedures recommended comprise an effective approach to acquisition and application of discriminating performance evaluation data. These recommended designs will provide new capabilities which are virtually unattainable in a manual system. They will also facilitate the adoption of major improvements in the advancement system which are now being developed.

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                     and E1-E4.
                     (SRR 73-11)

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A. STATEMENT OF THE PROBLEM

1. Background

The current state of the art in computer technology makes practicable a long-needed transition of on-job performance evaluations from a manual to an automated basis. This transition began in 1968 with the development and implementation of an Optical Mark Reader (OMR) document for the top three enlisted Pay Grades, E-7/8/9 (Robertson, 1969). When Optical Character Reader (OCR) equipment, which had been installed initially for the Joint Uniform Military Pay System--JUMPS, became available, the E-7/8/9 document was redesigned in OCR format.

The shortcomings of the manual system and the advantages and demonstrated additional capabilities of the new automated system are discussed extensively elsewhere (Robertson, 1972; Robertson, James and Royle, 1972), and will not be discussed in this Report. However, two points bear emphasis:

a. The primary thrust of the present project is on substantive, rather than hardware, considerations. The purpose is to reduce inflation of marks and to achieve greater differentiation among levels of performance of ratees, by designing new formats tailored to the specific pay grade groups.

b. The distribution of marks achieved is strongly influenced by the evaluators' and ratees' knowledge of the uses made of the marks, especially the coding procedures employed, and the standards published and applied for individual personnel actions (reenlistment, advancement, awards).

2. Purpose

This Report describes the development of evaluation source documents for two Pay Grade groups, E-5/6 and E-1/2/3/4. Alternative experimental formats and procedures were designed and administered in a field trial for the following purposes:

a. Selection of the format most effective in discriminating among various levels of performance, especially in the Pay Grade E-5/6 group.

b. Investigation of the limited range of marks resulting from use of the present operational coding procedure with the new marking scales (e.g., stereotyped marking practices).

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c. Determination of manual preparation time, electronic processing time, and discrepancy rates in the use of OCR performance evaluation documents, to permit comparison with present system costs.

d. Identification and redesign of other components necessary for an integrated performance evaluation system.

B. PROCEDURES

1. Experimental Format Designs

Four basically different alternative designs--1a, 2a, 3 and 5-- were developed for the Pay Grade E-5/6 group.[1] For the Pay Grade E-1/2/3/4 group, two designs, Forms 1 and 2, were developed (see Appendix B).

2. Evaluation, Situational, and Duty Recommendation Items

The following evaluation items were selected and defined for the middle and lower pay grade groups, respectively (see again Appendix B):[2]

Applies to Pay Grade			Applies to Pay Grade		
5-6	1-4	Item	5-6	1-4	Item
√	√	Individual Productivity	√	√*	Directing (*Pay Grade 4 only)
√		Flexibility	√		Counseling
√	√	Reliability	√	√	Cooperation
√	√	Conduct		√	Responsiveness
√	√	Personal Appearance			

A Duty Recommendation Block, similar to that used for Chief Petty Officers on the NAVPERS 1616/8, was also incorporated into one of the control group forms, 2b. Two experimental evaluation items, "Overall Evaluation" and "Innovativeness," and one situational item, "On-Board for Duty Status," were also included.

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[1]Two modifications (1b and 1c) of 1a, and one modification (2b) of 2a, were administered to control groups for the purpose of investigating particular psychometric characteristics. However these data are not pertinent to this analysis. A Form 4 was also developed but subsequently deleted to reduce the complexity of the study.

[2]The conceptual and methodological bases for the development of formats and items are described extensively in SRM 72-10 (Robertson, 1972).

3. Coding Schemata

Under present operational procedures, the evaluation marks on the NAVPERS 792 10-point scales are converted to numerical scores (1.0, 2.0; then 2.6, 2.8...4.0) which are published and defined in the BUPERS Manual (Navy Department, 1969). For Pay Grades 1-6, virtually all standards for individual personnel actions and qualifications are expressed as averages of these scores. Since this policy has continued for many years, it was considered essential to determine empirically the effect the old scoring scheme might have on new formats. Thus, each sample for the four basic E-5/6 forms was further subgrouped into three coding schemes:

Type	Code
Numeric - present	1.0 - 4.0
Numeric - new	0 - 9
Graphic - new (presently used on E-7/8/9 form)	B5S - T05, or marks only without codes

Since inflated marks and stereotyped marking practices are not as much of a problem in the lower pay grades, the two E-1/2/3/4 forms were trial administered using only the two numeric type codes. Necessary administrative procedures were simulated by advising (in the instructions) the evaluating officials of the codes which their personnel office would be employing. Appendix C contains examples of three variations of the instructions. (However, for purposes of comparative analysis, all subgroups were recoded during data processing into the 0-9 scale in accordance with the scores presented in Table 1.)

4. OCR Documents

In order to perform realistic fleet trials similar to the ultimate operational procedures, documents were designed for processing on the page reader used by the Bureau of Personnel, the CDC 915. Also, some data fields were located in positions which facilitate standardized procedures for filing documents in the Service Records (i.e., with identifying items at the bottom of the page). Two experimental OCR documents were developed to assess the "mark-sense" (i.e., reads only the position of an "X") and "character-sense" (i.e., reads any alpha, numeric or other symbolic character) modes of the CDC 915. Samples of these two documents, P-EX-1 (mark-sense) and P-EX-2 (character-sense), are presented in Appendix D. (In the present trials, P-EX-2 is useable with any of the evaluation formats, whereas P-EX-1 was necessarily designed similar to only one particular format, 1a.)

5. Data Collection

a. Sampling. Instead of selecting a sample from the total Pay Grade 2-6 population, a random sample was drawn from seven Ratings

(the term for Navy job specialties) which were considered reasonably representative of all occupational areas:

AD - Aviation Machinists Mate
DC - Damage Controlman
ET - Electronics Technician
HM - Hospital Corpsman
PN - Personnelman
RM - Radioman
SK - Storekeeper

This procedure was used to obtain a relatively homogenous sample, since extensive subgrouping tended towards small subgroup sizes, and it is well known that marks vary substantially among Ratings (Royle et al., 1972).

The overall research design, with sample sizes and subgroup categories, is presented in Table 2. To ensure that each format-coding type subgroup responded independent of other subgroup types, no unit command received more than one type. The fifteen E-5/6 subgroups were randomly distributed among approximately 2,000 participating unit commands. Each of the four E-2/3/4 format-coding types were distributed with a similar E-5/6 type.

b. Survey of User (Evaluating Officials) Reaction. Two types of questionnaires (one structured and one unstructured, Appendix E) were designed to assess the evaluating officials' reaction to the understandability, importance, and effectiveness of the new items and formats. Since the questionnaire of 47 structured items was the more time-consuming, only one set of three (i.e., one each for an initiating, reviewing and reporting official) was administered to each participating command. The unstructured Comment and Suggestion sheets were enclosed for optional use by all evaluating officials.

6. Analysis

a. Using a set of scores common to all groups (i.e., 0-9 as indicated in Table 1), frequencies, percentages, means, standard deviations and intercorrelations were computed for all marked Evaluation and Duty Recommendations items.

b. Four measures of User Reaction were obtained: (1) Percentage of response to the structured questionnaire items, (2) frequency of favorable or adverse remarks on the unstructured questionnaire, (3) content analysis of remarks, and (4) discrepancies in preparation and handling of the OCR documents, such as missing or multiple responses, or accidental mutilation, which would prevent or delay machine processing.

c. Since the primary problem with on-job performance evaluation marks, especially in the higher supervisory pay grades, is one of

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inflated marks, and the primary need is for finely discriminating marks when the selection ratio is small (i.e., when only a small percentage of candidates can be advanced), two internal (statistical) criteria were employed in determining which of the alternative format-coding types was the best:

(1) The lowest mean ($\overline{X}$), and

(2) The lowest proportion of marks at the high end of the scale.

d. The relationship of the evaluating officials' (User Reactions) comments to their assigned marks was determined by rank-ordering the frequency of certain types of comments, rank-ordering the means of their marks, and computing Spearman (rho) correlations.

e. Machine processing considerations were studied in terms of document preparation and processing time and discrepancy (reject) rate.

C. RESULTS

1. Evaluation Items

Pay Grade 5 means, standard deviations, and intercorrelations are presented in Table 3. The distribution of marks for Individual Productivity and Directing, representative of items marked relatively high and low respectively, are presented in Figure 1, along with two analogous items from the present operational form (NAVPERS 792). From Figure 1 it is apparent that the new forms substantially reduce the pile-up of marks at the high end of the marking scale.

Intercorrelations in Table 3 are relatively high. The range of correlations for the two items most and least highly interrelated with the other items is:

Item	Correlation Range
Overall Evaluation	.84 - .90
Appearance	.64 - .74

The very high relationship between the Overall item and the other items indicates that this item contributes nothing unique and is unnecessary.

2. Differences Among Format-Coding Combinations

The two items discussed above, with means representative of high (Individual Productivity) and low (Directing) marked items, were used for this part of the analysis.

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a. Pay Grade 5 and 6. Upon applying the criteria discussed above
(i.e., best distribution in terms of lowest mean and least pile-up at
the high end of the scale) to Figures 2a-2c and Table 4, it may be ob-
served that Forms 2a and 5 were approximately similar in effectiveness
with the employment of the 0-9 and graphic coding procedures. In Fig-
ures 2a-2c the stereotypic effect of the 1.0-4.0 coding procedure is
quite noticeable. Not only are these marks generally higher than the
other coding groups (except on Form 3) but are quite unresponsive to
differences in the forms (i.e., as indicated by the relatively flat
1.0-4.0 line across forms).

A three-way multivariate analysis of variance (Clyde et al.,
1966; Rao, 1952) was performed for Pay Grades 5 and 6 separately,
Table 5. Although Rating and statistical interaction differences were
not consistently significant across pay grades, Form (p < .007 and
.023) and Coding (p < .015 and .001) differences were highly signifi-
cant for Pay Grades 5 and 6 respectively.

b. Pay Grades 3 and 4. Figures 3 and 4 display the means and
distribution of marks for Pay Grade 3 and 4. These figures show that:

(1) Form 2 had the lower means.

(2) Coding schemes yielded no consistent differences.

(3) The mode of the marks is in the second highest column.

3. Duty Recommendations

a. The absence of a pile-up of marks at the high end of the scales
in Figure 5 suggests that the evaluating officials were quite selective
in marking the seven special recommendations. (However, the high "not
recommended" percentage for Recruit Company Commander in Block 10D may
be more a reflection of the low popularity of the billet than of the
absence of qualified prospects.)

b. The correlations in Table 6 between Duty Recommendation and
evaluation items are relatively low.[3] The two items with the highest
and lowest relationship (excluding Conduct and Appearance which are
artificially low due to the truncated range of the scale) respectively
are:

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[3]These low correlations may be a result either of the Duty Recom-
mendations contributing additional, unique information; or of the short
3-point Duty Recommendation scale artificially shrinking the correla-
tion coefficients. Resolution of this question is outside the scope of
this phase of the project.

Duty Recommendations	Correlation Range with Evaluation Items
Independent Duty (10G)	.35 - .54
Recruit Company Commander (10D)	.17 - .33

(Again, as above stated, the low relationship of the Company Commander recommendation may reflect the unpopularity of the billet.) Other correlations suggest certain logical relationships of interest:

Duty Recommendations	Highest Correlation	With Evaluation Item
(all)	.33 - .54	Directing & Reliability
Career Counselor	.44	Counseling
Independent Duty	.54	Reliability

4. Evaluating Officials' Response

a. Judged effectiveness. Although there were substantial differences in the comparison of the new forms with the present NAVPERS 792 (Items B39 - B46 of the User Reaction Questionnaire), there were only small and inconsistent differences among the new format-coding types themselves. Results were similar for all four of the purposes investigated--advancement, training, special assignments, and general discrimination among levels of performance. The Advancement in Rate responses are presented in Table 7 as representative. It may be noted that no single format or coding type clusters at the top (although Form 2a is generally highest). A 2a (1.0-4.0) and 5 (graphic) Form are at the top, while another Form 5 (0-9) is at the bottom. The negligible differences among all new types is quite evident from Figure 6 in which the highest and lowest ranked types are compared with the NAVPERS 792 distributions.

b. Understandability and importance. There were generally few marks at the low end of these marking scales. "Unclear" marks (Items B5 - B16 and B29 - B38) were below five percent. "Minor Importance" marks (Items B17 - B28) were below three percent (except for the Overall item - 4.5, Evaluation comments - 5.5, and Justification comments - 10).

c. User comments. The content of the comments varied widely and made categorization of limited usefulness. For convenience, however, the most frequently offered comments are presented in the following three categories:

(1) Desired additional guidance

(a) Give more detailed instructions for:

i. The appropriate marks in relation to disciplinary and other actions, and

ii. Qualifications for the special Duty Recommendations.

(b) Emphasize that the Evaluation and Justification comments should be brief and to the point.

(2) Design features

(a) Include a Block for ratee to sign that he has seen the Evaluation.

(b) Delete the Overall item.

(c) Add a special Duty Recommendations section.

(d) Do not truncate the upper end of the scale for the Conduct and Appearance items.

(e) Eliminate the 1.0-4.0 scoring procedure.

(f) Identify the column for marking the typical (i.e., "T" zone) ratee.

(g) Include item titles with the item definitions.

(h) The descriptors in the typical ratee ("T" zone) column are too high for the truly typical ratee.

(i) Add a "Good" column to Form 1.

(j) It is difficult to evaluate Appearance in the light of current policy on grooming.

(3) Attitudes concerning effectiveness. The frequency of comments in each subgroup expressing a favorable, effective or liking reaction to the form was rank-ordered and compared with the rank-order of evaluation mark means of the subgroups. The Spearman rho correlation coefficient obtained was near zero, indicating no relationship between judged effectiveness by the users and the statistical criteria employed in this analysis. However, the rank-ordered frequency of comments contending that the new form (for that subgroup) was similar to, or not much different from, the present NAVPERS 792, correlated fairly highly (ρ = .525) with the rank-ordered evaluation mark means. Thus, the more the forms were thought to resemble the present system, the more the users tended to inflate their marks.

d. Comments from the Personnel Offices. The Comment and Suggestion Sheet (Appendix D) also invited comments from the persons preparing the documents. A sampling of 56 commands revealed 31 different critical comments in the following categories:

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(1) Not enough OCR typewriters (16%).

(2) Increased work-load; too time consuming (58%).

(3) OCR-type forms too complicated (19%).

(4) Expressed preference for OMR format (7%).

5. Machine Processing

a. Scanning Rate. The programming for the CDC 915 page reader resulted in the documents being scanned at the following rate:

(1) P-EX-1 - 5 seconds per document, or 720 per hour.

(1) P-EX-2 - 4 seconds per document, or 900 per hour.

b. Condition of the OCR documents. The discrepancy rate was quite high--approximately 60 percent. Excluding the Blocks primarily or only of research interest, the forms were 35 percent discrepant on operational type items. Some of the most common reasons were:

Types of Discrepancy	Percentage
(1) Totally non-scannable (wrong font, spacing, wrong ribbon, handwritten, blank, blurred).	10%
(2) Improper corrections (white-out, wrong character, strikeover, tape, erasures, retype above-below the corrected entry).	10%
(3) Bad alignment.	3%
(4) Too close to field marks.	$3\frac{1}{2}$%
(5) Lower case, incorrect numerics, two line entry in same field, incorrect OCR characters.	$6\frac{1}{2}$%
(6) Alpha characters in numeric fields (pay grade, social security, date).	5%

Approximately 15 percent of the total sample required retyping (OCR) or key punching. Another 10 percent required more minor OCR corrections.

6. Discussion

a. Systems considerations. From the above results, the best of each of three performance evaluation system components must be selected. The criteria proposed for the bases of the selections are:

(1) Evaluation format

(a) Marking scales which maximally discriminate among the levels of performance (the statistical criteria as stated above in paragraph B.6.c.).

(b) Designs tailored to specific pay grade groups which enable evaluating officials to acknowledge typically high level performance in the middle, rather than at the high end, of the marking scale. [This is especially essential with a "show and tell" (ratee) policy.]

(c) Formats manifestly unique among the pay grade groups in order to minimize stereotyped marks resulting from similarity in formats at the different pay grades.

(2) Coding procedures which:

(a) Connote and emphasize the relative level of the evaluated performance, as distinguished from a non-meaningful quantitative measure which is amenable to stereotyping.

(b) Encourage maximally valid criteria for important individual personnel decisions (e.g., qualifications for reenlistment, honorable discharge, good conduct medal). [Tentatively, criteria expressed as a rate (i.e., frequencies of specific evaluation item marks within specific time periods) appear to be more sensitive to trend and less amenable to stereotyping than global averages.][4]

(3) OCR designs which:

(a) Minimize document preparation time.

(b) Minimize processing time.

(c) Maximize use of the data contained.

(d) Are within a realistic data processing capability.

b. Form 5 was the most resistant to inflated marks, followed closely by Form 2a. Although each was effective with both the graphic and new numeric (0-9) coding procedures, Form 5 with a graphic-type code is best supported by the above criteria for the following reasons:

(1) Form 5 is uniquely different from the present E-7/8/9 format (whereas Form 2a was a direct adaptation).

(2) Although the 0-9 code would be initially effective, it can reasonably be assumed to be ultimately as amenable to stereotyping as the present 1.0-4.0 code.

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[4] As an example of the insensitivity of averages, it appears that raising performance evaluation standards for reenlistment would not improve the level of the reenlisting population (Sharp et al., 1970), although this is attributable largely to the already highly favorable base rate upon which it is difficult to improve.

c. The stated preferences and comments in the User Reaction Questionnaire must be considered of limited guidance. In addition to indicating only small and inconsistent differences among format-coding types, there were logical contradictions, including:

(1) Although subgroup 4 marked Form 2a with a 1.0-4.0 code highest in effectiveness (Figure 6), 2a was the form modified most by raised (i.e., inflated) 1.0-4.0 coded marks, and Form 2a was also the form modified most (by subgroup 16) by lowered graphic-coded marks (User Reaction Question B47).

(2) Although the "Typical Ratee" description was criticized as too high, above paragraph C.4.c.(2)(h), the modal marks of virtually all evaluation items were in higher columns.

d. OCR processing capability. The document preparation and processing times in Table 8 were estimated from informal conversations with representative of Pers-N107 and the Cleveland Finance Center, and from work sampling.

Compared with the processing of the OMR type NAVPERS 1616/8 Form for Pay Grades 7-9, the OCR documents resulted in a markedly higher discrepancy rate and lower scanning rate:

	OMR (NAVPERS 1616/8)	OCR (P1616-8)	OCR (P-EX-2)
Processed per hour			
Experimental	3600	---	900
First operational year	3600	170 600*	---
Percentage discrepant			
Experimental	6%	---	50%
First operational year	5%	50%	---

*After reprogramming to delete storage of certain information.

Of the two OCR documents trial administered in this study, P-EX-2 is the more efficient (i.e., less time consuming). However, it does not appear to be within existing processing capabilities. Since the CDC 3300 CPU, to which Pers-N's two CDC 915 scanners are coupled, must be used extensively for other production work also, it is doubtful whether any more than 60,000 (of an estimated 250,000 individual performance evaluation documents which would be submitted within each quarter) could be scanned. To implement an OCR document such as P-Ex-2 would require 30 preparation work-years more than the present NAVPERS 792, and still not provide the additional capability of automated data processing for important management purposes such as quality retention, detailing and advancement.

e. Alternative OCR Summary document. A combination of a manual-type Form 5 and an OCR-type two-line summary per ratee (on Table 8, the "P-Summary" document similar to the present NAVCOMPT 3061) would have the following advantages:

(1) The manual form would be a cheaper, simpler form; mistakes would be easier to correct; and its preparation would be facilitated by using another copy as the Worksheet.

(2) The OCR Summary document:

(a) Would be within present processing capabilities,

(b) would facilitate correction of preparation errors (i.e., by voiding an individual ratee entry and reentering the data on the next line, while still preserving the previous entries,

(c) and, of critical importance, would facilitate scanning of the most recent submissions immediately prior to convening of selection boards and dates of advancement competition.

(3) Preparation time for the combination would be no greater than that for individual OCR documents for each ratee (i.e., six minutes for each manual Form 5 plus an average of two minutes per ratee on the OCR Summary document).

The disadvantage, of course, would be the requirement for the preparation and handling of two different documents and the attendant possibility of transcription error.

D. SUMMARY OF FINDINGS

1. The most striking finding was the stultifying effect of the present operational 1.0-4.0 coding procedure on the new forms. Not only were the marks generally higher than for other coding procedures, but they were less responsive to format differences among the alternative experimental forms.

2. Applying the criteria of lowest mean and smallest pile-up of marks at the high end of the scale, the best of the Pay Grade 5/6 group experimental forms were 5 and 2a. Each was similar in effectiveness using either a new numeric (0-9) or graphic (Top/Bottom) coding procedure.

3. All format-coding combinations in the Pay Grade 5/6 group were substantially more effective than the present NAVPERS 792 document at holding down the pile-up of marks at the high end of the marking scale. Modes were reduced from the first or second to the third or fourth marking columns.

4. Modal marks for the evaluation items on the Pay Grade 3/4 group usually were in the second column, and there were no differences due to

coding type. (However, since inflated marks and small selection oppor-
tunity are not problems in the lower pay grades, these forms did not
contain "Typical Ratee" modal anchors.)

5. The absence of a pile-up of marks at the high end of the scale on
the Special Duty Recommendations suggested that the evaluating officials
were being selective in their recommendations.

6. Evaluating officials considered (in the User Reaction Questionnaire)
all of the new format-coding types to be substantially more effective
than the present operational form, but differences among their prefer-
ences for the new types were negligible.

7. There was a generally negative reaction from the personnel offices
preparing the OCR documents. The documents were regarded as too time
comsuming and complicated. There was a high discrepancy rate on the
OCR documents--35 percent on operational type items, thus requiring
much rework and correction.

8. Use of a separate OCR document for each E3-E9 ratee would result
in an annual work-load beyond the foreseeable scanning capability of
the Bureau of Personnel. However, an OCR two-line Summary Sheet, with
a capacity for twelve ratees per document, would be less expensive and
would require no more (and perhaps less) overall preparation effort
than OCR documents prepared for individual ratees.

E. RECOMMENDATIONS

The forms and procedures recommended below comprise an integrated
Performance Evaluation System designed to make discriminating evalua-
tion data available for a maximum number of automated uses, with a
minimum amount of preparation effort, and within a realistic process-
ing capability. The six designs (presented in Appendix F) and the
particular features of each are:

1. Performance Evaluation Report for Pay Grades 5-6

    a. Based on experimental Form 5.

    b. As a manual type form, minimizes design time, production
cost, and preparation time.

    c. Modifications include the "Typical Ratee" modal anchor
(from Form 2a), truncated scales for the Appearance and Conduct items
(Forms 1a, 2b and 1), Special Duty Recommendations (Form 2b), ratee's
signature as having sighted Report, and item titles in parentheses
following item definitions to maintain focus on the definitions.

    d. All boxes display codes to facilitate transcription (codes
to be printed in a light "drop-out" shade).

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2. Performance Evaluation Report for Pay Grades 1-4

    a. Essentially an application of Form 1.

    b. Same type of scales as Form 5 but without "Typical Ratee" modal anchor.

    c. Addition of "Good" column to marking scale.

3. Performance Evaluation Summary OCR Document (design with examples)

    a. Capacity for twelve ratees.

    b. Minimizes preparation time and facilitates correction of preparation errors.

    c. Maximizes processing capability and speed.

4. Criteria for Individual Personnel Actions (Table 9)

    a. Employs a frequency of specified marks within specified periods (similar to present operational E-7/8/9 criteria) in lieu of averages.

    b. Employs codes which connote the level of the evaluation mark in lieu of numerical codes.

    c. Discourages inflation by focusing on the disqualifying marks rather than on progressively higher averages, which are largely insensitive to specific marks.

5. Computation of Performance Component for Advancement (Table 10)

    a. Obviates manual computation of averages, thereby eliminating time and error.

    b. Preserves present maximum points for the performance component in the advancement composite (Final Multiple Score).

    c. Provides transition compatible with present operational procedures.

6. Service Record Page 9 Performance Summary (Table 11)

    a. Since all criteria for individual personnel actions are stated as minima (i.e., disqualifying), and evaluation item intercorrelations are generally high, a limited number of selected items are quite adequate as a basis for determining individual personnel qualifications.

b. All specified criteria use only five items for Pay Grade group 7-9 and four items for Pay Grade groups 5-6 and 1-4, thereby reducing administrative review and computational time, and making the criteria readily adaptable to the present page NAVPERS 601-9 pending revision.

F. CONCLUSIONS

1. This subproject completes the source document phase of the development of the Enlisted Automated Performance Evaluation System. Just as was done in the initial study for the Pay Grade 7-9 group (Robertson, 1969), two aspects of performance evaluation, each capable of independent analysis, were investigated in the present study: (1) Feasibility of automation, and (2) substantive design features specially tailored to these ratee groups:

a. Automated processing. The trial administration of the OCR Forms has demonstrated that processing time and discrepancy rate pose much greater problems than were experienced with the OMR type NAVPERS 1616/8 Form used for Pay Grades 7-9. Whether these problems could be reduced to an acceptable level if the trial form were implemented as presently designed (i.e., a P-EX-2 Form for each individual ratee) is problematical. The OCR Performance Summary document offers the best approach to achieving a workable processing capability, not only with the Pay Grade 1-4 and 5-6 Forms, but with the 7-9 Form as well, if OCR Forms are to be used in preference to OMR.

b. Evaluation scales and procedures. When the new format, codes and criteria for the Pay Grade 7-9 group were implemented, their general acceptance was also problematical (particularly since the codes and criteria had not been incorporated in the experimental design). Their subsequent acceptance by both evaluators and selection boards suggests that the substantive aspects of the present new forms and procedures will be similarly accepted. In fact, Form 2a (the adaptation of the E-7/8/9 Form) was considered by the evaluators (in the User Reaction Questionnaire) the most effective (although only slightly above the others), and could readily have been recommended, if unique format differences among pay grade groups were not also of concern. Thus, the present data indicate that the forms and procedures herein recommended comprise the best approach to acquisition and application of discriminating performance evaluation data.

2. Procedures which need to be specified in the implementing instructions and manuals (and which were not addressed in the present report) include:

a. Comparable items across pay grade groups for a master performance evaluation tape layout.

b.   Common codes across pay grade groups (basically identical to
those in Table 1).

    c.   Mandatory marks for disciplinary and other actions.

3.   The above recommended designs will provide new capabilities which
are virtually unattainable in a manual system (e.g., screening entire
populations of candidates for specified marks), and which are presently
available only for the relatively small E-7/8/9 population. It will
also enable continued development of work in progress on the automated
monitoring system and on computer-generated data displays which will
generate statistically standardized data tailored to specific personnel
decisions.

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APPENDICES

APPENDIX A

Tables 1-8 and Figures

TABLE 1

Equivalent Numerical Scores for Comparison Of Evaluation Forms and Codes

Pay Grade Group	Form	Subgroup No.	Type	Scale Codes									
5-6	1a	1	Numeric	4.0	3.8	3.6	3.4	3.2	3.0	—[a]	2.6	2.0	1.0
		2	Numeric	9	8	7	6	5	4	—	2	1	0
		3	Graphic			(marks only)[b]			—				
	1b	14	Graphic			(marks only)[c]							
	1c	15	Graphic			(marks only)[c]		—			—		
	2a	4	Numeric	4.0	3.8	3.6	3.4	3.2	3.0	2.8	2.6	2.0	1.0
		5	Numeric	9	8	7	6	5	4	3	2	1	0
		16	Graphic	T05	T15	T25	T35	T50	B50	B25	B15	B5M	B5S
	2b	17	Graphic	T05	T15	T25	T35	T50	B50	B25	B15	B5M	B5S
	3	6	Numeric	4.0	3.8	3.6	3.4	3.2	3.0	—	2.6	2.0	1.0
		7	Numeric	9	8	7	6	5	4	—	2	1	0
		18	Graphic	T05	T15	T25	M5L	M5C	M5R	B25	—	B5M	B5S
	5	8	Numeric	4.0	3.8	3.6	3.4	3.2	3.0	2.8	2.6	2.0	1.0
		9	Numeric	9	8	7	6	5	4	3	2	1	0
		19	Graphic			(marks only)[c]							
1-4	1	10	Numeric	4.0	3.8	3.6	—	3.2	—	2.8	—	2.0	1.0
		11	Numeric	9	8	7	—	5	—	3	—	1	0
	2	12	Numeric	4.0	3.8	3.6	3.4	3.2	—	2.8	—	2.0	1.0
		13	Numeric	9	8	7	6	5	—	3	—	1	0
Column scores used for analysis				9	8	7	6	5	4	3	2	1	0

[a] A dash (—) indicates an absence of that column on a particular form.

[b] Group 3 used OCR document P-EX-1. All other groups using an OCR document used P-EX-2.

[c] Groups 14, 15 and 19 were instructed to submit Worksheets only.

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TABLE 2

Coding Type, Scale Length and Sample
Size for Evaluation Formats

Pay Grade Group	Form (and Scale Length)		Numeric (present)	Numeric (new)	Graphic
5-6	1a (9)	Group No.	1	2	3
		Coding	1.0 - 4.0	0 - 9	(marks only)[a]
		N	261	246	423
	1b (10)	Group No.			14
		Coding			(marks only)[b]
		N			240
	1c (8)	Group No.			15
		Coding			(marks only)[b]
		N			210
	2a (10)	Group No.	4	5	16
		Coding	1.0 - 4.0	0 - 9	B5S - T05
		N	185	190	165
	2b (10)	Group No.			17
		Coding			B5S - T05
		N			159
	3 (9)	Group No.	6	7	18
		Coding	1.0 - 4.0	0 - 9	B5S - T05
		N	93	144	117
	5 (10)	Group No.	8	9	19
		Coding	1.0 - 4.0	0 - 9	(marks only)[b]
		N	126	150	132
2-4	1 (7)	Group No.	10	11	
		Coding	1.0 - 4.0	0 -9	
		N	321	328	
	2 (8)	Group No.	12	13	
		Coding	1.0 - 4.0	0 - 9	
		N	205	236	

[a] Group 3 used OCR document P-EX-1. All other groups using an OCR document used P-EX-2.

[b] Groups 14, 15 and 19 were instructed to submit Worksheets only.

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TABLE 3

Means, Standard Deviations, and Intercorrelations of
Performance Evaluation Items for Pay Grades 5 and 6
(Experimental Forms 2a, 3, and 5 Combined)

Evaluation Item	Block Number	2	3	4	5	6	7	8	9	10	Mean	S.D.
Individual Productivity	2		.88	.88	.69	.66	.81	.74	.75	.90	6.75	1.73
Flexibility	3			.86	.72	.64	.83	.78	.80	.89	6.52	1.70
Reliability	4				.72	.66	.80	.73	.74	.88	6.70	1.80
Conduct	5					.73	.72	.70	.74	.81	6.74	1.77
Personal Appearance	6						.65	.65	.64	.74	6.72	1.72
Directing	7							.83	.82	.86	6.25	1.77
Counseling	8								.83	.84	5.90	1.83
Cooperation	9									.86	6.48	1.81
Overall	10										6.50	1.76

TABLE 4

Rank-Order of Proportion of Individual Productivity Marks
In the Top 3 Columns for Pay Grades 5 and 6

Pay Grade 5			Pay Grade 6			Pay Grades 5 & 6 Combined		
Σ of % Top 3 Col.	Form	Coding	Σ of % Top 3 Col.	Form	Coding	Σ of % Top 3 Col.	Form	Coding
44.28	1a	Graphic	50.58	2a	Graphic	51.28	2a	Graphic
46.43	5	Graphic	54.18	5	Graphic	51.89	5	Graphic
52.11	2a	Graphic	57.95	2a	0-9	52.95	1a	Graphic
52.47	2a	0-9	60.75	5	0-9	55.27	2a	0-9
58.11	5	0-9	60.82	1a	Graphic	58.97	5	0-9
58.82	3	Graphic	66.10	1a	0-9	63.57	1a	0-9
60.38	3	1.0-4.0	72.39	1a	1.0-4.0	64.13	3	1.0-4.0
60.72	5	1.0-4.0	72.58	3	Graphic	66.94	3	Graphic
61.11	1a	1.0-4.0	72.97	3	1.0-4.0	67.55	1a	1.0-4.0
62.59	1a	0-9	75.30	3	0-9	69.92	5	1.0-4.0
63.63	2a	1.0-4.0	77.27	5	1.0-4.0	70.37	2a	1.0-4.0
85.48	3	0-9	77.77	2a	1.0-4.0	79.86	3	0-9

TABLE 5

Summary of Multivariate Analyses of Variance for Individual Productivity, Pay Grades 5 and 6, Analyzed by Form Type, Coding Scheme and Rating

Source of Variation	Sum of Squares	d.f.	Mean Square	F	p less than
A. Pay Grade 5					
Within Cells	2454.203	945	2.597		
Coding Scheme	21.989	2	10.995	4.234	0.015
Numerical - present (1.0-4.0)					
Numerical - new (0-9)					
Graphic					
Form Type (1a, 2a, 3, 5)	31.630	3	10.543	4.060	0.007
Rating (AD, DC, ET, HM, PN, RM, SK)	29.165	6	4.861	1.872	0.083
Coding X Form	54.670	6	9.112	3.508	0.002
Coding X Rating	72.560	12	6.047	2.328	0.006
Form X Rating	101.794	18	5.655	2.178	0.003
Coding X Form X Rating	115.428	36	3.206	1.235	0.164
B. Pay Grade 6					
Within Cells	2968.839	1045	2.841		
Coding Scheme	45.091	2	22.546	7.936	0.001
Numerical - present (1.0-4.0)					
Numerical - new (0-9)					
Graphic					
Form Type (1a, 2a, 3, 5)	27.201	3	9.067	3.191	0.023
Rating (AD, DC, ET, HM, PN, RM, SK)	79.185	6	13.198	4.645	0.001
Coding X Form	26.735	6	4.456	1.568	0.153
Coding X Rating	38.977	12	3.248	1.143	0.320
Form X Rating	71.301	18	3.961	1.394	0.125
Coding X Form X Rating	120.361	36	3.343	1.177	0.221

TABLE 6

Means, Standard Deviations and Intercorrelations of Duty Recommendations, And Correlations Between Duty Recommendations and Evaluation Items, Pay Grades 5 and 6 (Form 2b only)

Evaluation Item	Bl.No.	MAAG	Recruiter	Career Couns.	RCC	Staff, Attaché	Instructor	Indepdt Duty	Individual Productivity	Directing	Counseling	Cooperation	Flexibility	Reliability	Personal Appearance[a]	Conduct[a]	Mean	S.D.
MAAG/MISSION	10A		.63	.58	.54	.85	.54	.72	.42	.49	.33	.29	.35	.47	.21	-.04	1.90	.81
Recruiter	10B			.81	.62	.57	.55	.55	.33	.40	.39	.31	.34	.33	.08	-.13	1.75	.80
Career Counselor	10C				.59	.54	.53	.50	.33	.43	.44	.35	.36	.35	.08	-.13	1.81	.78
Recruit Company Commander (RCC)	10D					.56	.54	.52	.28	.33	.17	.18	.28	.26	.01	-.10	1.55	.72
Joint/Combined Staff, Attaché & Naval Hdqts.	10E						.51	.66	.42	.44	.30	.26	.35	.43	.13	-.03	1.84	.82
Instructor	10F							.58	.34	.39	.26	.29	.31	.33	-.01	-.03	2.10	.84
Independent Duty	10G								.52	.53	.35	.36	.40	.54	.11	-.10	2.12	.84

[a]Shortened scales on these items artificially curtail these correlations with other items.

TABLE 7

Rank-Ordered Judged Effectiveness Among Pay
Grades 5 and 6 Format-Coding Types
(User Reaction Questionnaire B39 and B43)

Rank	Mean Effectiveness	Form	Code	Group
1	1.882	2a	1.0-4.0	4
2	1.989	5	Graphic	19
3	2.027	3	1.0-4.0	6
4	2.030	2a	Graphic	16
5	2.039	1a	0-9	2
6	2.049	1a	Graphic	3
7	2.057	5	1.0-4.0	8
8	2.090	1a	1.0-4.0	1
9	2.093	3	Graphic	18
10	2.109	2a	0-9	5
11	2.195	3	0-9	7
12	2.306	5	0-9	9

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TABLE 8

Estimated Preparation and Processing Times for Selected
Experimental and Operational Documents

Document	Preparation			Electronic Processing	
	Annual Document $\underline{N}$	Minutes Per Doc.	Navy Man Years[a]	Seconds Per Indiv. Ratee	Documents Per Hour
OMR					
NAVPERS 1616/8	60,000[b]	7	3.80	1	3,600
OCR					
P-1616-8	60,000[b]	15	8.15	6[c]	600
P-EX-1	940,000[g]	10	85.14	5	720
P-EX-2	1,000,000[d]	8	72.46	4	900
P-Summary	125,000[e]	16 (2 per Ratee)	18.11	1	450
NAVCOMPT 3061	110,000[f]	15 (3 per entry)	14.85	1½	450
Manual					
NAVPERS 792	940,000[g]	5	42.57	-[h]	-
Form 5	940,000[g]	6	51.09	-	-

[a]At 1840 productive work hours per year.

[b]Active duty E-7/8/9's only.

[c]Was initially 23 seconds per document until reprogrammed.

[d]Includes E3-E9, since the E-7/8/9 evaluations could also be coded and submitted on this "character sense mode" document.

[e]Although the capacity of the form is for 12 Ratee summaries, this is a conservative estimate of 8 per document for the E3-E9 population.

[f]Although the capacity of the form is 9 entries, the actual submissions average 4.5 per document.

[g]Includes E3-E6 only.

[h]The present Manual (N/P 792) data could be loaded on tape for an estimated additional 7 minutes per Ratee as must be done for data acquisition for research and analysis (i.e., adding time for duplicate preparation, routing, mailing, sorting, key punching and verifying).
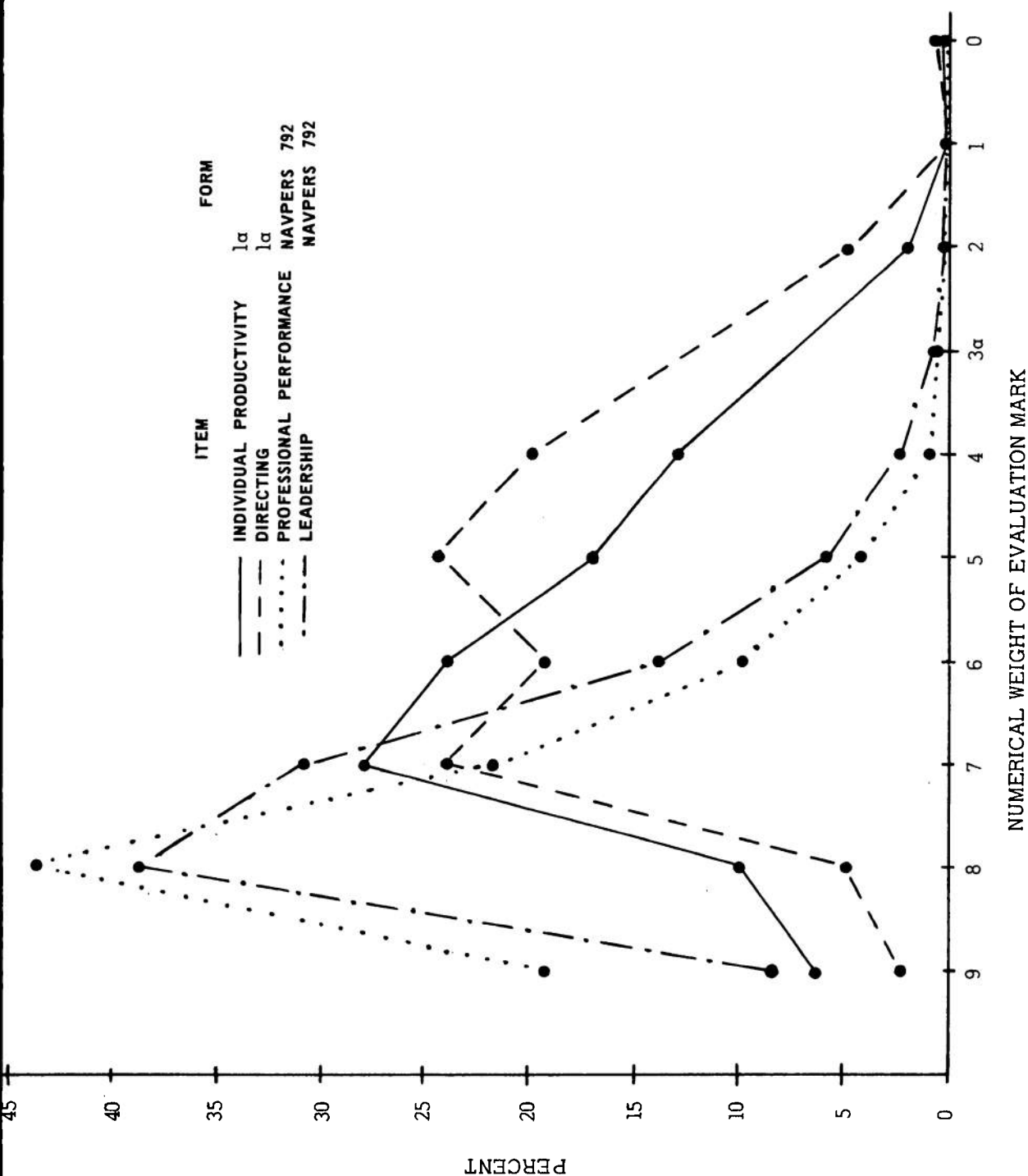
Fig. 1. Proportion of Pay Grade 5 Ratees marked on two analogous items on Experimental Form 1a and the present operational Form NAVPERS 792 (operational data from Thomas, 1968).
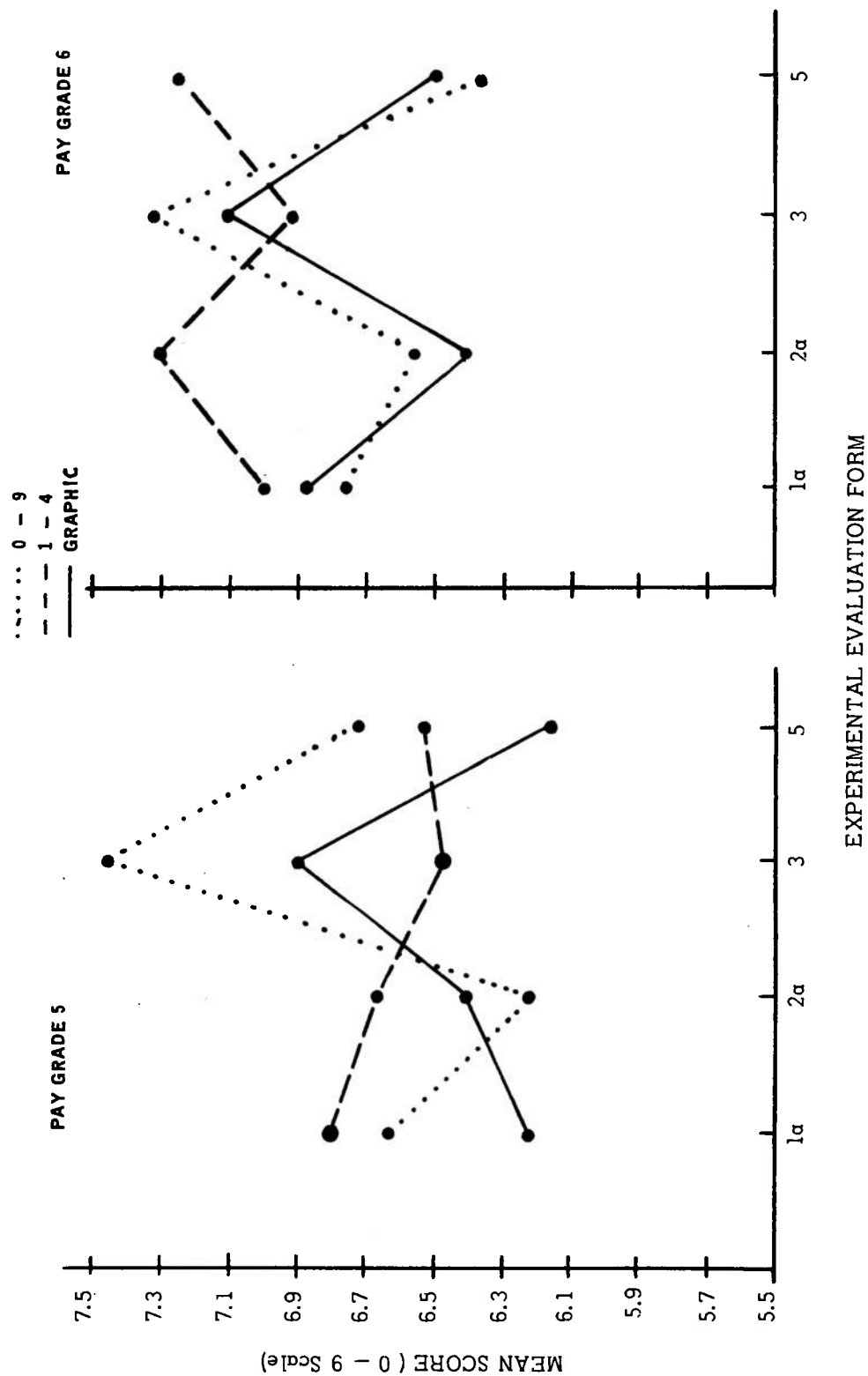
Fig. 2a. Average Individual Productivity evaluation marks by forms and coding type for Pay Grades 5 and 6.
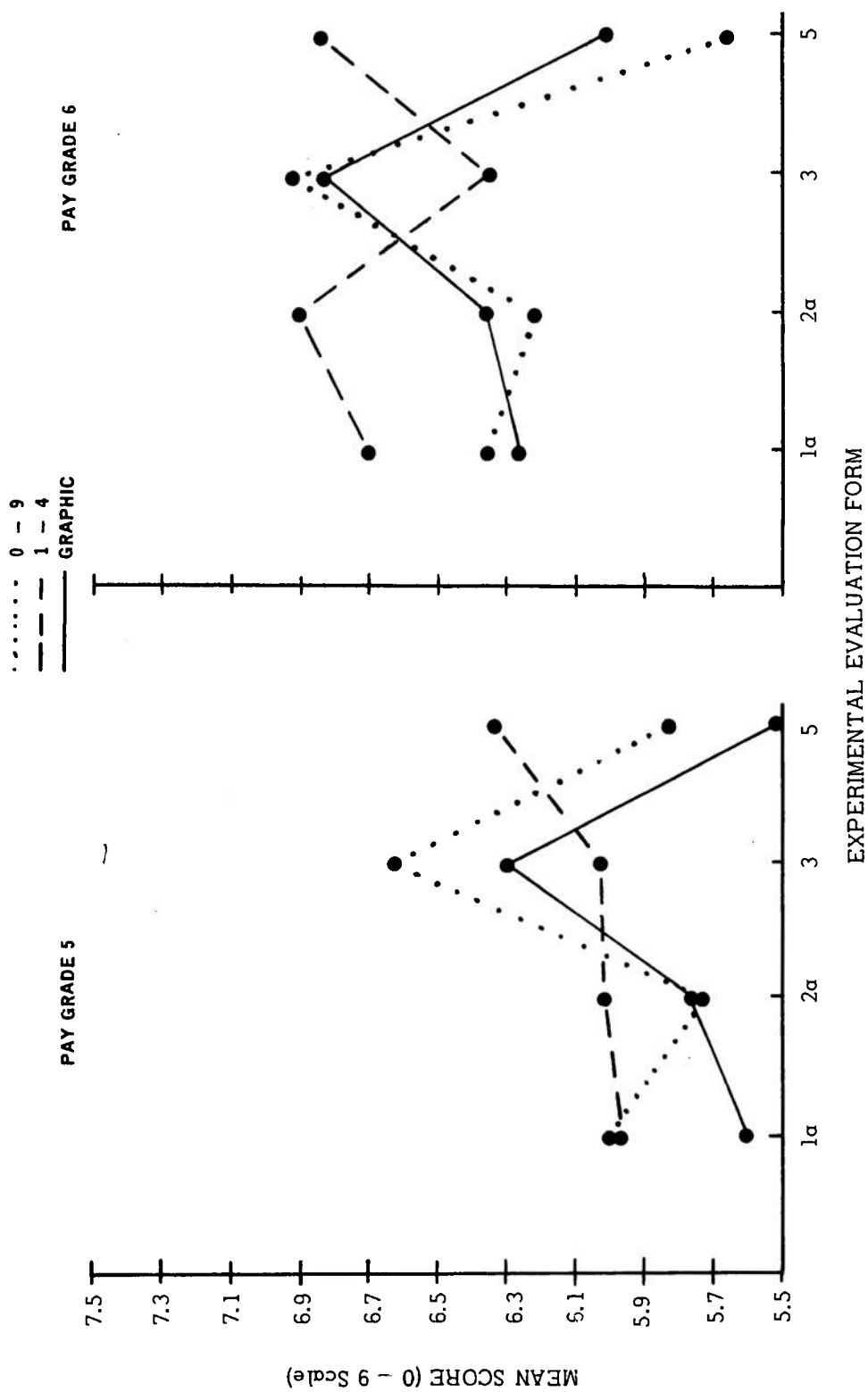
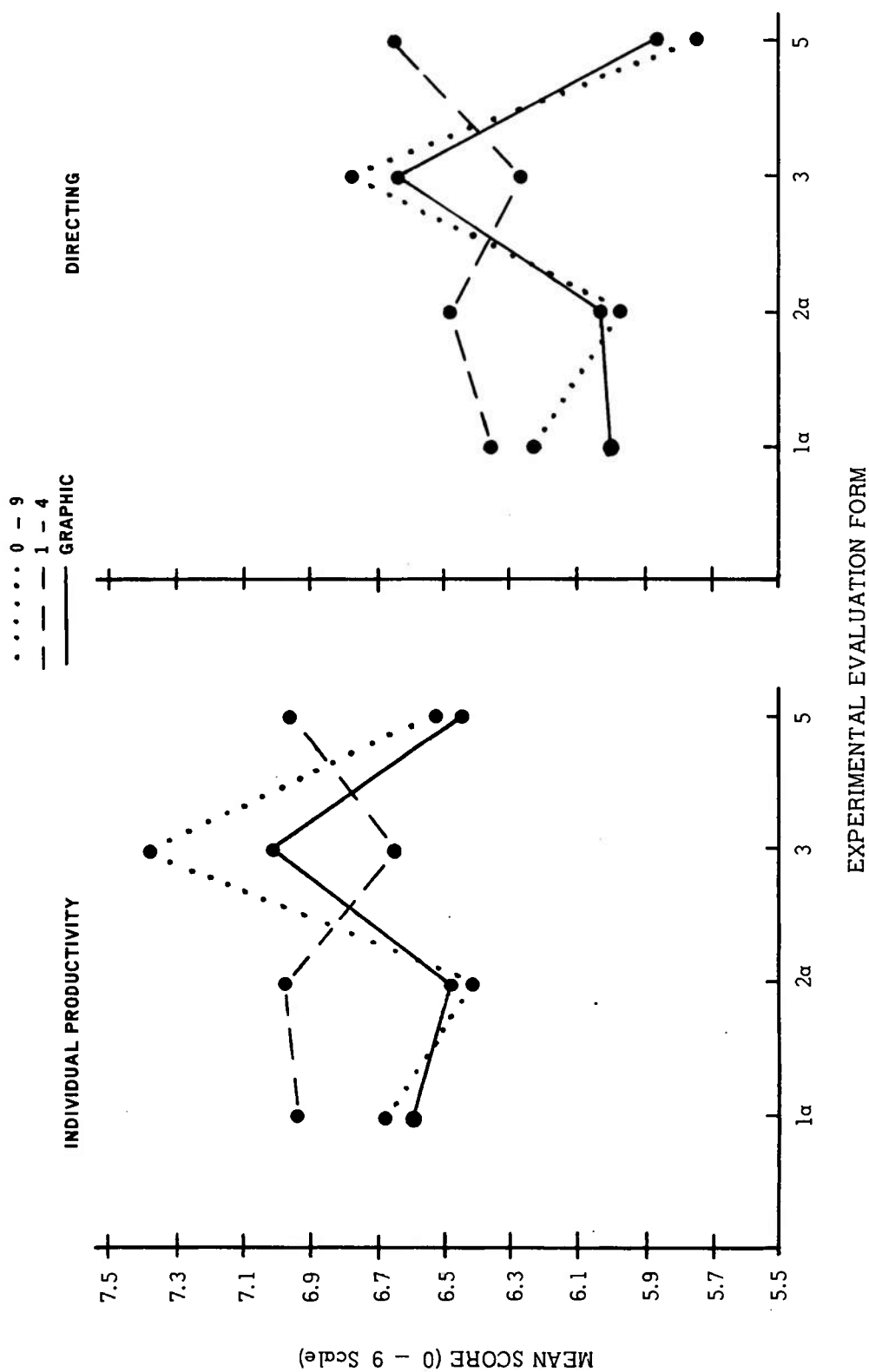Fig. 2b. Average _Directing_ evaluation marks by forms and coding type for Pay Grades 5 and 6.

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Fig. 2c. Average <u>Individual Productivity</u> and <u>Directing</u> evaluation marks by form and coding type, Pay Grades 5 and 6 combined.
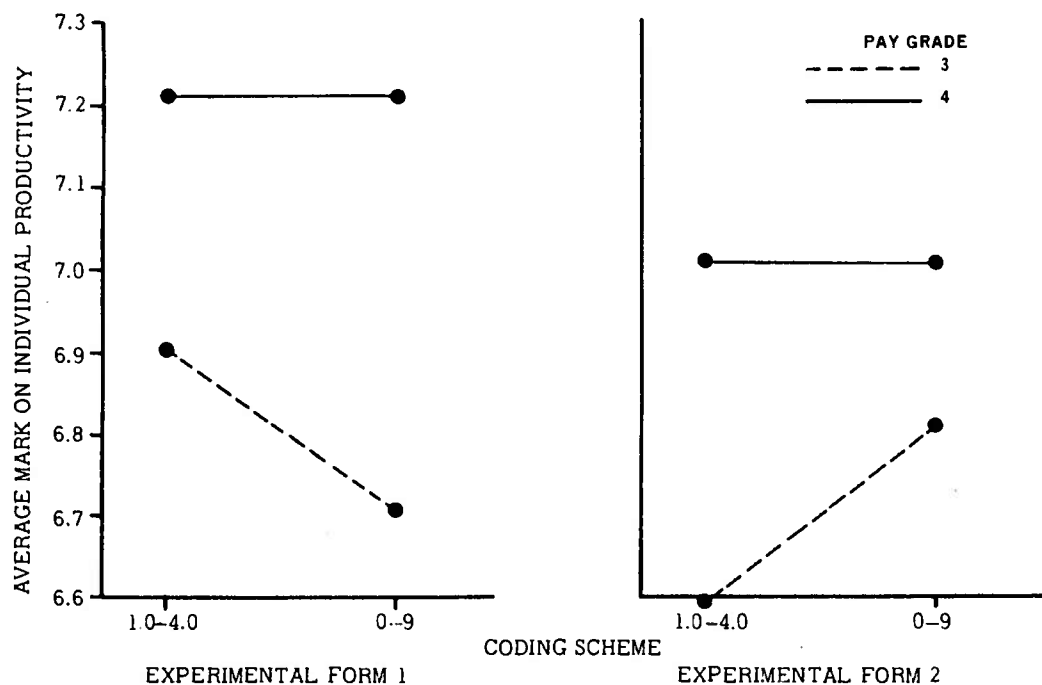
34

Fig. 3.   Average Individual Productivity evaluation marks by form and coding type for Pay Grades 3 and 4.
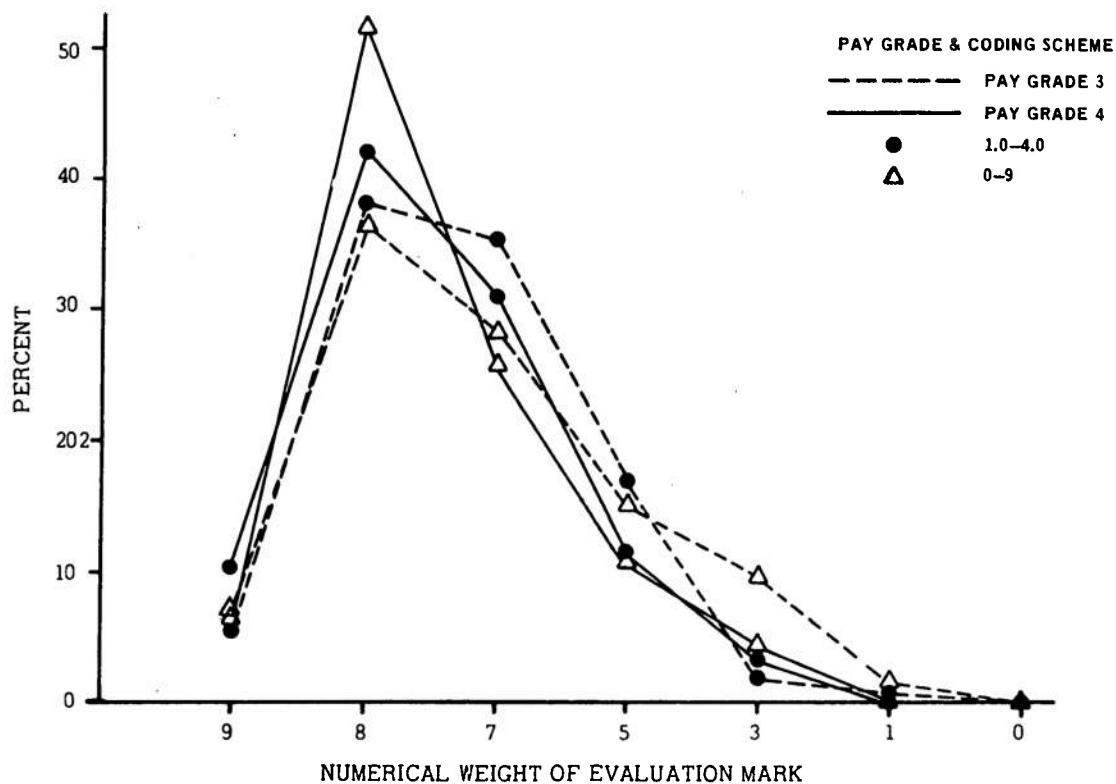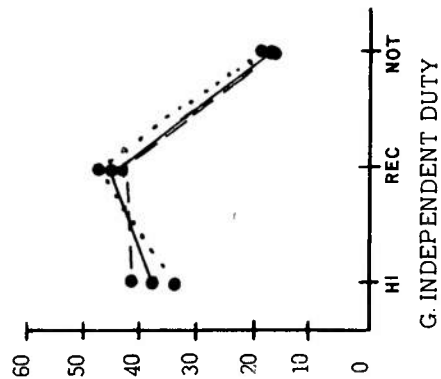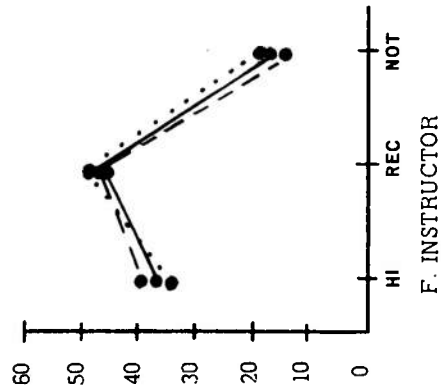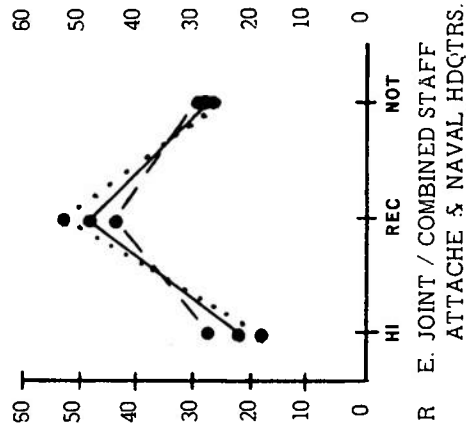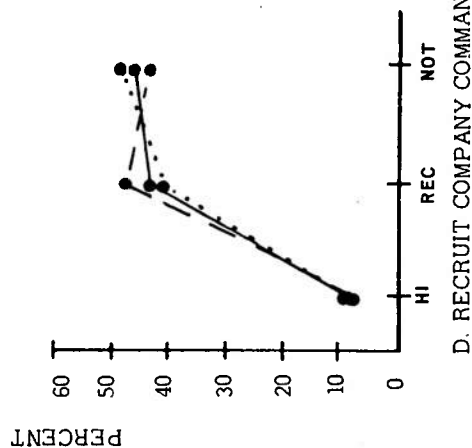

Fig. 4.   Distribution of Individual Productivity marks on Form 1 by coding type for Pay Grades 3 and 4.
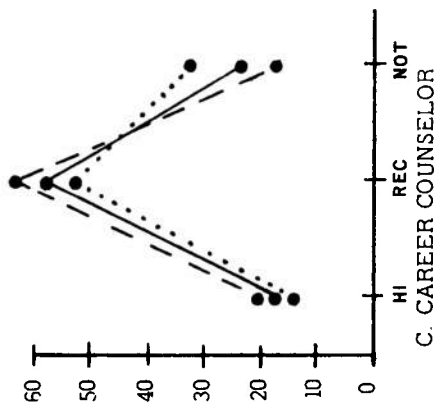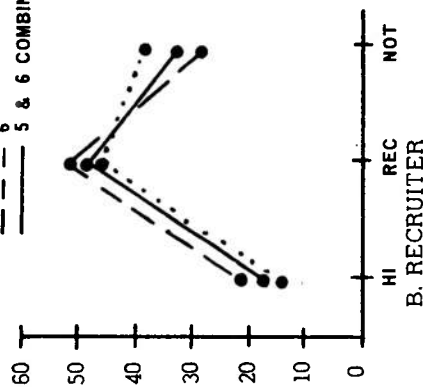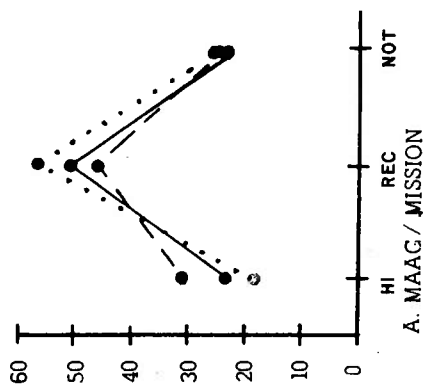
Fig. 5. Distribution of marks, Pay Grades 5 and 6, on Special Duty Recommendations (BL 10 of Form 2b).
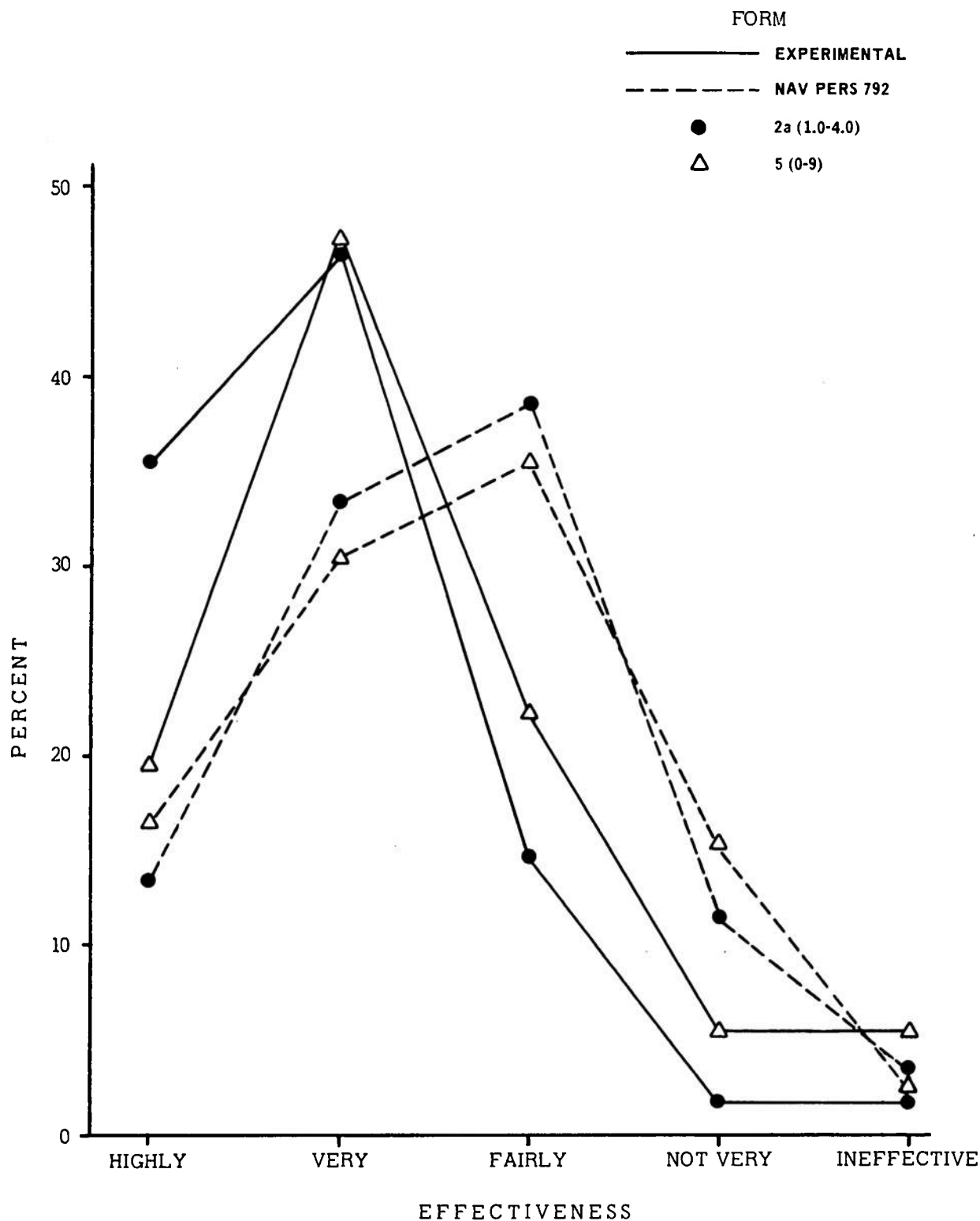
Fig. 6. Raters' attitudes regarding the effectiveness of the experimental forms and the NAVPERS 792 for advancement purposes (User Reaction Questionnaire B39 and B43).

APPENDIX B

Alternative Format Designs

FIRST and SECOND CLASS PETTY OFFICER EVALUATION REPORT

NPTRL,SD EX 5/6-1a

WORKSHEET

1. DESCRIPTION OF DUTIES AND ACTIVITIES DURING THIS REPORTING PERIOD
   (INCLUDE DEPLOYMENTS AND EDUCATIONAL ACHIEVEMENTS)

	INITIATING OFFICIAL
	REVIEWING OFFICIAL
	REVIEWING OFFICIAL
	REPORTING OFFICIAL

EVALUATION SECTION

TYPICAL PETTY OFFICER OF RATEE'S RATE WHO MEETS OR EXCEEDS REQUIREMENTS OF THE JOB

COMPARE RATEE WITH ALL OTHERS OF HIS RATE KNOWN TO YOU.

* ANY MARK IN TOP BOTTOM TWO COLUMNS REQUIRES INDIVIDUAL JUSTIFICATION IN BLOCK 26.

	NOT OBSERVED	EFFECTIVE							UNSATISFACTORY	
		EXTREMELY EFFECTIVE AND EXCELS OVER:			EXTREMELY	HIGHLY	ADEQUATELY	MARGINALLY	MINOR	SERIOUS
		VIRTUALLY ALL	NEARLY ALL	MOST						
		OTHERS OF SAME RATE *	*						SHORTCOMINGS *	
2. INDIVIDUAL PRODUCTIVITY										
3. DIRECTING										
4. COUNSELING										
5. COOPERATION										
6. FLEXIBILITY										
7. RELIABILITY										
8. OVERALL EVALUATION										

		IMPRESSIVE				UNSATISFACTORY	
		EXTREMELY	VERY	ADEQUATELY	MARGINALLY	MINOR	SERIOUS
9. PERSONAL APPEARANCE	☐					SHORTCOMINGS	

						UNSATISFACTORY	
		IMPECCABLE	PROPER		MARGINAL	MINOR	SERIOUS
10. CONDUCT	☐					VIOLATIONS	

(HATCHED AREAS NEED NOT BE FILLED IN ON WORKSHEET)

SPECIAL CODES	11	12	13	14.	15 INNOVATIVE CONTRIBUTIONS? CHECK HERE IF YES ☐ (DESCRIBE IN BLOCK 25 OR 26)

IDENTIFYING INFORMATION

16 COMMAND TITLE

17 UIC

18 RATE	19 PAY GRADE	20 OCCASION FOR THIS REPORT ☐ SEMI-ANNUAL ☐ TRANSFER ☐ OTHER	21 PERIOD OF REPORT FROM DA MO YR TO DA MO YR

22 NAME (LAST, FIRST, MIDDLE NAME OR INITIAL) | 23. SERVICE NUMBER | 24. SSAN

25. EVALUATION COMMENTS: (Include verbal expression and services to shipmates. Describe what ratee accomplished (or failed to accomplish) or what resulted from ratee's performance.)

CLARIFICATION OF TERMS

Ratee: The person being evaluated. Rate: Rating and pay grade. Innovative Contributions:(Blk 15): Improvement in procedures or mechanisms created or developed by ratee.

EVALUATION ITEMS

2. Individual Productivity: Ratee's demonstrated technical competence and own work output, including individual contribution to group effort, but not including the work of persons ratee supervises.

3. Directing: Influencing others to accomplish a job.

4. Counseling: Assisting and encouraging subordinates in self-development and to a favorable disposition toward the Naval Service.

5. Cooperation: Promoting harmonious working relationships and team effort.

6. Flexibility: Accomplishing work under changes in personnel, job content, objectives, or working conditions.

7. Reliability: Carrying out tasks without direct supervision or monitoring.

8. Overall Evaluation: General value to the Naval Service.

9. Personal Appearance: Dress and grooming, on and off duty, which reflects on the Naval Service.

10. Conduct: Behavior, on and off duty, which reflects on the Naval Service.

EXCERPTS FROM SECTION 3410150, BUPERS MANUAL

"It is desired that the member's division officer or appropriate chief petty officer make the initial evaluation. The evaluation shall be based on the specific period of time involved and reviewed for approval through the chain of command." (para. (3))

"The completed Form shall be signed by the commanding officer, except that the commanding officer may authorize the executive officer or department head to sign provided such officers are of the grade of LCDR or above, or equivalent grade officer of another service." (para. (9)(b))

"Evaluations must be based objectively on the member's demonstrated performance and his abilities as compared to established Navy standards and the performance of his contemporaries. . . . . It is necessary that a member's shortcomings, such as alcoholism or other unreliability producing deficiencies, be reported. Such deficiencies can be of vital importance in the selection of members for duty assignment, advancement, etc." (para. (4))

"Where memorandum entries of a meritorious or derogatory nature have been made in the service record e.g., on pages 6, 9 or 13, the evaluation should be corrected by an amount considered appropriate in those traits which pertain to the entry." (para. (10))

Block 25 shall contain a definite statement as to the member's abilities in self-expression, orally and in writing, and command of the English language. (para. (2))

26. JUSTIFICATION COMMENTS: (Use only to document any marks in the TOP/BOTTOM two columns of the Evaluation Section, blocks 2 thru 10. Avoid the use of adjectives which would simply be parroting the evaluation marks.)

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Evaluation Sections of Forms 1, 2, 2a, 3 and 5

Form 2a (Pay Grades 5-6)

Form 3 (Pay Grades 5-6)

Form 5 (Pay Grades 5-6)

Form 1 (Pay Grades 1-4)

Form 2 (Pay Grades 1-4)

APPENDIX C

Instructions for Simulation of Evaluation
and Coding Procedures

E-5/6 Packet for

(Ratee's name)

(Rate)   (Div)

INSTRUCTIONS FOR PARTICIPATION IN FLEET TRIALS OF
AUTOMATED PERFORMANCE EVALUATION REPORT FOR
FIRST AND SECOND CLASS PETTY OFFICERS

READ BEFORE OPENING ENVELOPE

For Intra-Cmd Routing

1. To improve the effectiveness of evaluating the job performance of enlisted personnel, it is planned to employ a new electronically-processible form in the near future.

2. This trial-run of the new form is being conducted on a Navy-wide sample of personnel in order to permit revisions, if needed, of the form or procedures prior to implementation. To this end, it is important that you evaluate the individuals in the sample exactly as you will when the new form is operational (although results of this trial-run are for analysis and will not become part of the individual's service record).

3. This packet contains:

    a. One electronically-processible [Optical Character Recognition-type (OCR) Document] Performance Evaluation Report Form.

    b. One E-5/6 Worksheet for above form.

    c. Comment and Suggestion Sheet.

4. Procedures

    a. By evaluating officials (Initiating, Reviewing and Reporting):

    (1) Complete the Worksheet, complying with all instructions on the Evaluation Report Form. In Blocks (Blk.) 2-9 (also 10 on some forms) and 15 mark Ratee in accordance with the definitions of the items (on the Worksheet). Use the "Excerpts From BUPERS Manual" for further guidance.

    (2) Special instructions for Blocks 11-15, 20 and 21.

        Blk. 11. For ratee's on-board status, enter one of the following Codes:

Code	Status	Code	Status
0	On-board for Duty	4	Transient or awaiting
1	Student under Instruction		return of Unit
2	Patient	9	Any other status than
3	Awaiting Disciplinary Action		On-board for Duty

        Blk. 12, 13 & 14 (Leave Blank)

        Blk. 15. Mark "X" for yes only if innovation was significant and was actually approved or implemented, and describe in Blk. 25 or 26. (Do not include as innovations mere skill in using existing procedures or equipment.)

        Blk. 20 & 21. For this trial-run, indicate "X" in "semi-annual" and Period From 15 10 70 To 15 04 71 respectively.

    (3) If ratee has recently been transferred, complete the forms as though he were still on board. If both ratee and a knowledgeable rater have been transferred, write-in "transferred to _____ " on enclosure (1) beside ratee's name, and return that ratee's packet unused.

    (4) Do not staple, paper-clip, smudge, or fold the electronically-processible OCR Document.

    (5) The Comment and Suggestion Sheet is optional. Please make any suggestions which you believe might contribute to a better system of Performance Evaluation.

    (6) Each Initiating/Reviewing official replace all materials in this packet envelope; forward it through your chain of command to the Reporting official; who will return it to your Personnel/Administrative office for conversion of your marks to equivalent 1.0-4.0 numerical grades and preparation of the OCR Document.

    b. (See "Instructions--Continued" inside packet.)

INSTRUCTIONS--CONTINUED

b. By Personnel Office:

(1) Complete the OCR Document, P-EX-2, from the information on the Worksheet, complying with the care, precision, and procedures in BUPERSINST 5210.6. (Exception--do not include the transmittal letter NavComp Form 3051.)

(2) Convert the evaluation marks on the Worksheet to the following Codes for Blks. 2-9 (% Top--"T"; Middle--"Mid"; Bottom--"B"):

For "X" marked in Column	Enter OCR Code	For "X" marked in Column	Enter OCR Code
Not observed	N	Mid-50 (Center	3.2
B-05 Serious	1.0	Mid-50 (Left)	3.4
B-05 Minor	2.0	T-25	3.6
B-25	2.6	T-15	3.8
Mid-50 (Right)	3.0	T-05	4.0

(3) In Blk. 12, enter the following number: 06. (Leave Blks. 10-10K, 13 and 14 blank.)

(4) Type "X" to mark Blks. 15 (if applicable) and 20.

(5) Enter the BUPERS Unit Identification Code (BUIC) in Blk. 17 from BUPERS Report 1080-14. (Although the second Blk. from the upper left hand corner of the 1080-14 Report containing this Code is entitled "10-digit," it is actually a 7-digit Code. Ensure that the Code you enter contains 7 digits.)

(6) In Blk. 19, enter the pay grade numeral only (5 or 6) of rate indicated in enclosure (1), regardless of recent advancement.

(7) Blks. 1, 25 and 26 need not be completed with the OCR font.

(8) Route the OCR Documents to the Reporting Official for signature.

(9) Place the following materials in the return-addressed envelope to the San Diego Research Laboratory: OCR Document, Worksheet, Comment and Suggestion Sheet, User Reaction Questionnaire, OMR Answer Sheet, and Listing of ratees in the sample.

Alternative Directions for Coding

Group 7

(6) Each Initiating/Reviewing official replace all materials in this packet envelope; forward it through your chain of command to the Reporting official; who will return it to your Personnel/Administrative office for conversion of your marks to equivalent 0-9 numerical grades and preparation of the OCR Document.

(2) Convert the evaluation marks on the Worksheet to the following Codes for Blks. 2-9 (% Top--"T"; Middle--"Mid"; Bottom--"B"):

For "X" marked in Column	Enter OCR Code	For "X" marked in Column	Enter OCR Code
Not observed	N	Mid-50 (Center)	5
B-05 Serious	0	Mid-50 (Left)	6
B-05 Minor	1	T-25	7
B-25	2	T-15	8
Mid-50 (Right)	4	T-05	9

Group 18

(6) Each Initiating/Reviewing official replace all materials in this packet envelope; forward it through your chain of command to the Reporting official; who will return it to your Personnel/Administrative office for preparation of the OCR Document.

(2) Convert the evaluation marks on the Worksheet to the following Codes for Blks. 2-9:

For "X" marked in Column	Enter OCR Code	For "X" marked in Column	Enter OCR Code
Not observed	N	Mid-50 (Center)	M5C
Bot-05 Serious	B5S	Mid-50 (Left)	M5L
Bot-05 Minor	B5M	Top-25	T25
Bot-25	B25	Top-15	T15
Mid-50 (Right)	M5R	Top-05	T05

APPENDIX D

Optical Character Reader (OCR) Source
Documents P-EX-1 and P-EX-2

ALIGN FIRST CHARACTER IN THIS BOX   TYPE THE WORD "ALIGN" TO REGISTER HERE   ALIGN

BUPERS USE ONLY   BUPERS USE ONLY

P-EX-1

FIRST AND SECOND CLASS PETTY OFFICER EVALUATION REPORT

DESCRIPTION OF DUTIES AND ACTIVITIES DURING THIS REPORTING PERIOD

EVALUATION SECTION

Typical Petty Officer of Ratee's Rate who meets or exceeds requirements of the job

EFFECTIVE   UNSAT

NOT OBSERVED

IND. PRODUCTIVITY

DIRECTING

COUNSELING

COOPERATION

FLEXIBILITY

RELIABILITY

OVERALL EVAL.

IMPRESSIVE   UNSAT

PERS. APPEARANCE

CONDUCT

SPECIAL CODES

COMMAND TITLE

13. Rate   19. Pay Grade   20. OCCASION FOR THIS REPORT   21. PERIOD OF REPORT

FROM   TO

22. Service No.   24. Years

25. EVALUATION COMMENTS

MAKE
NO
MARKS

(inuation of block 25 or 26 comments)

eporting Officer

NAME	RANK	SIGNATURE

ALIGN FIRST CHARACTER IN THIS BOX

TYPE THE WORD "ALIGN" TO REGISTER HERE — ALIGN

BUPERS USE ONLY

P-EX-2

BUPERS USE ONLY

PERFORMANCE EVALUATION REPORT

DESCRIPTION OF DUTIES AND ACTIVITIES DURING THIS REPORTING PERIOD

EVALUATION MARKS

15. INNOVATIVE CONTRIBUTIONS

17.

18. 19. Pay Grade 20. OCCASION FOR THIS REPORT

Transfer Other 21. PERIOD OF REPORT

FROM DA MO YR TO DA MO YR

22. NAME (Last, First, Middle Name, Initial) 23. Service No. 24. SSAN

25. EVALUATION COMMENTS (Include verbal expression, providing services to dispatch, and further description of performance and qualifications)

MAKE NO MARKS

REPORTING OFFICER

NAME	RANK	SIGNATURE

APPENDIX E

User Reaction Questionnaires

QUESTIONNAIRE

on

USER REACTIONS TO AUTOMATED E-5/6 or E-2/3/4
EVALUATION REPORT FORM

INSTRUCTIONS

This Questionnaire is to be completed by the Initiating, Reviewing and Reporting Official who participates in the evaluation of

Ratee:

Name	Service No.

in this trial-run. Please complete the Evaluation Report first; then complete this Questionnaire.

Please record your answers to the questions in the B field of the OMR Answer Sheet, using a #1 or #2 lead pencil. Please also record the ratee's name and service number in the Name and Service Number grids (adjacent to the C field). (For your convenience, this Questionnaire is designed so that you may first encircle the letter of the answer you have selected.)

Questions B1 through B4 concern the official completing this Questionnaire.

B1. You are this ratee's:

    a. Initiating official

    b. Intermediate reviewing official

    c. Reporting official

B2. Your pay grade or rank:

    a. E-5 or below   d. E-8 or E-9

    b. E-6   e. WO (if above, see next Question)

    c. E-7

B3. Your rank (continued):

    a. ENS   d. LCDR

    b. LTJG   e. CDR or above

    c. LT

B4. How many months have you served in present command?

    a. 0-3 months   d. 13-24 months

    b. 4-6 months   e. 25 or more months

    c. 7-12 months

Following is a list of the items and types of comments in the Evaluation Section of the new form. Please indicate how <u>understandable</u> and <u>important</u> each item is. Consider "understandable" in terms of the specific definition provided for each item. If your understandability answer is b or c, please write your suggestions for clarifying the item at the bottom of this page.

*If item not on your Worksheet, leave "Understandability" and "Importance" answers blank.

UNDERSTANDABILITY

<u>a</u> Adequately Understandable
<u>b</u> Needs to be Clarified slightly
<u>c</u> Unclear, incomplete or confusing

IMPORTANCE

<u>a</u> Extremely
<u>b</u> Very
<u>c</u> Fairly
<u>d</u> Minor

Block location on Form E-5/6	E-2/3/4	Evaluation Section Item	UNDERSTANDABILITY	IMPORTANCE
2	2	Ratee's own work output,....	B5. a b c	B17. a b c d
*	3	Promptness, alertness, ...	B6. a b c *	B18. a b c d
3	*	Accomplishing work under changes	B7. a b c *	B19. a b c d
4	4	Carrying out tasks without direct supervision	B8. a b c	B20. a b c d
5	7	Behavior,....	B9. a b c	B21. a b c d
6	8	Dress and Grooming,....	B10. a b c	B22. a b c d
7	6	Influencing others to accomplish job....	B11. a b c	B23. a b c d
8	*	Assisting.... self-development....	B12. a b c *	B24. a b c d
9	5	Promoting harmonious.... relationships....	B13. a b c	B25. a b c d
10*	*	General value....	B14. a b c *	B26. a b c d
25	25	Evaluation Comments	B15. a b c	B27. a b c d
26	26	Justification Comments	B16. a b c	B28. a b c d

- -

<u>No.</u>   Suggestions for clarifying items marked b or c on UNDERSTANDABILITY

___   _____

___   _____

___   _____

___   _____

___   _____

Following is a list of information and instruction blocks on which data are to be recorded on the new Evaluation Form. Use the following code to indicate how understandable you found each Block (Blk.) listed.

a   Adequately understandable

b   Needs to be clarified slightly

c   Unclear, incomplete or confusing

*   If not on your Worksheet, leave blank

If your answer is b or c, please write the number of the item and your suggestions for clarification at the bottom of this page.

a b c   B29. Description of duties and activities (Blk. 1)

a b c   B30. Evaluation Section--Instructions (above Blk. 2)

a b c   B31. Evaluation Section--Column headings

a b c *   B32. Special Duty Recommendations (Blks. 10a-10e)

a b c   B33. Special Codes--On-board status (Blk. 11)

a b c   B34. Innotative contributions (Blk. 15)

a b c   B35. Command Title and BUIC (Blks. 16 & 17)

a b c   B36. Other identifying data (Blks. 18-24)

a b c   B37. BUPERS Excerpts

a b c   B38. Overall arrangement of identification and
                  Evaluation items (all Blks.)

- -

No.   Suggestions for clarifying items marked b or c.

—   _____

—   _____

—   _____

—   _____

—   _____

—   _____

—   _____

—   _____

Please indicate how effective you think the NAVPERS Form 792 and the new E-5/6 or E-2/3/4 Evaluation Form are in evaluating persons for the following purposes:

Effectiveness

a. Highly effective
b. Very effective
c. Fairly effective
d. Not very effective
e. Ineffective

Purpose	Performance Evaluation Form	
	Present NAVPERS 792	The New E-5/6 or E-2/3/4
Advancement in Rate	B39. a b c d e	B43. a b c d e
Selection for special educational or training programs	B40. a b c d e	B44. a b c d e
Assignment to special duty	B41. a b c d e	B45. a b c d e
In general, distinguishing among outstanding, typical and less effective persons of the same rate	B42. a b c d e	B46. a b c d e

- -

B47. (Only intermediate and final reviewing officials need answer this.) The marks I assigned the ratee bear the following relationship to the marks assigned by the previous marking official in the chain of command.

    I did not modify marks. (If not modified, leave answer blank)

a. I raised all or part of his marks a good deal

b. I raised all or part of his marks somewhat

c. Although I raised some and lowered some marks the average was essentially unchanged

d. I lowered all or part of his marks somewhat

e. I lowered all or part of his marks a good deal

OPTIONAL QUESTION

Do you have any other suggestions or comments you believe might contribute to better performance evaluation of E-5/6 or E-2/3/4 personnel?

_____

_____

_____

_____

_____

Now, please ensure you have recorded all applicable answers in the B field of the OMR Answer Sheet filling in the circles with a #1 or #2 pencil (and also ratee's identification in the Name and Service Number grids). Then replace all materials in the Instructions-packet.

THANK YOU

NAVAL PERSONNEL AND TRAINING RESEARCH LABORATORY, SAN DIEGO

COMMENT AND SUGGESTION SHEET

For Initiating/Reviewing/Reporting Officials and Personnel Office
Participating in Trial-Run of E-5/6 and E-2/3/4 Evaluation Report

---

Your: _____, Function: ( ) Initiating, ( ) Reviewing, ( ) Reporting Official
    rate/rank

Your: _____, Function: ( ) Initiating, ( ) Reviewing, ( ) Reporting Official
    rate/rank

Your: _____, Function: ( ) Initiating, ( ) Reviewing, ( ) Reporting Official
    rate/rank

Your: _____, Function: ( ) Personnel Office
    rate/rank

(for additional comments, use reverse side)

APPENDIX F

Recommended Forms and Procedures

FIRST and SECOND CLASS PETTY OFFICER EVALUATION REPORT
NAVPERS

1. DESCRIPTION OF DUTIES AND ACTIVITIES DURING THIS REPORTING PERIOD.
(INCLUDE DEPLOYMENTS AND EDUCATIONAL ACHIEVEMENTS)

EVALUATION SECTION

DIRECTIONS: COMPARE RATEE WITH OTHERS OF HIS RATE (RATE AND PAY GRADE) KNOWN TO YOU. MARK ONLY ONE BOX FOR EACH QUALITY.

* ANY MARK IN TOP/BOTTOM TWO COLUMNS REQUIRES INDIVIDUAL JUSTIFICATION IN BLOCK 21.

TYPICAL EXTREMELY EFFECTIVE PETTY OFFICER OF RATEE'S RATE; MEETS OR EXCEEDS REQUIREMENTS OF THE JOB

| | NOT OBSERVED | STANDS OUT FROM VIRTUALLY ALL OTHERS * * | SUPERIOR TO MOST | | | GOOD | | UNSATISFACTORY MINOR \| SERIOUS SHORTCOMINGS * * |

A. INDIVIDUAL QUALITIES.

2. RATEE'S DEMONSTRATED TECHNICAL COMPETENCE AND OWN WORK OUTPUT, INCLUDING INDIVIDUAL CONTRIBUTION TO GROUP EFFORT, BUT NOT INCLUDING THE WORK OF PERSONS RATEE SUPERVISES. (INDIVIDUAL PRODUCTIVITY)

| NOB | STU | STL | SUU | SUL | EEU | EEL | GOU | GOL | UNM | UNS |

3. ACCOMPLISHING WORK UNDER CHANGES IN PERSONNEL, JOB CONTENT, OBJECTIVES, OR WORKING CONDITIONS. (FLEXIBILITY)

| NOB | STU | STL | SUU | SUL | EEU | EEL | GOU | GOL | UNM | UNS |

4. CARRYING OUT TASKS WITHOUT DIRECT SUPERVISION OR MONITORING. (RELIABILITY)

| NOB | STU | STL | SUU | SUL | EEU | EEL | GOU | GOL | UNM | UNS |

5. BEHAVIOR, ON AND OFF DUTY, WHICH REFLECTS ON THE NAVAL SERVICE. (CONDUCT)

| NOB | EXEMPLARY XEM | | | | EEU | EEL | GOU | GOL | UNM | UNS |

6. DRESS AND GROOMING, ON AND OFF DUTY, WHICH REFLECTS ON THE NAVAL SERVICE. (PERSONAL APPEARANCE)

| NOB | IMPRESSIVE IMP | | | | EEU | EEL | GOU | GOL | UNM | UNS |

B. RELATIONSHIPS WITH SUBORDINATES

7. INFLUENCING OTHERS TO ACCOMPLISH A JOB. (DIRECTING)

| NOB | STU | STL | SUU | SUL | EEU | EEL | GOU | GOL | UNM | UNS |

8. ASSISTING AND ENCOURAGING SUBORDINATES IN SELF-DEVELOPMENT AND TO A FAVORABLE DISPOSITION TOWARD THE NAVAL SERVICE. (COUNSELING)

| NOB | STU | STL | SUU | SUL | EEU | EEL | GOU | GOL | UNM | UNS |

C. RELATIONS WITH SUPERIORS AND PEERS

9. PROMOTING HARMONIOUS WORKING RELATIONSHIPS AND TEAM EFFORT. (COOPERATION)

| NOB | STU | STL | SUU | SUL | EEU | EEL | GOU | GOL | UNM | UNS |

10. REPORTING SENIOR'S SPECIAL RECOMMENDATION FOR RATEE'S FUTURE DUTY ASSIGNMENTS:

HIGHLY RECOMMENDED [H] / RECOMMENDED [R] / NOT RECOMMENDED [N]

[H] [R] [N]	10A. MAAG/MISSION
[H] [R] [N]	10B. RECRUITER
[H] [R] [N]	10C. CAREER COUNSELOR
[H] [R] [N]	10D. RECRUIT COMPANY COMMANDER

HIGHLY RECOMMENDED [H] / RECOMMENDED [R] / NOT RECOMMENDED [N]

[H] [R] [N]	10E. JOINT/COMBINED STAFF, ATTACHE AND NAVAL HDQTS
[H] [R] [N]	10F. INSTRUCTOR
[H] [R] [N]	10G. INDEPENDENT DUTY
[H] [R] [N]	10H. OTHER (OPTIONAL: INDICATE IN BLOCK 20)

IDENTIFYING INFORMATION

11. BEHAVIORAL INFRACTIONS (If other than NONE, explain in block 20.)
[F] MAJOR OR FREQUENT [M] MINOR OR ISOLATED [N] NONE

12. PERIOD OF REPORT
FROM ___ DA MO YR ___ TO ___ DA MO YR ___ MONTHS COVERED

13. SHIP OR STATION

14. UNIT I. D. CODE

15. OCCASION FOR REPORT
[P] SEMI-ANNUAL [T] TRANSFER [M] OTHER
IF OTHER EXPLAIN IN BLOCK 20.

16. NAME (LAST, FIRST, MIDDLE NAME OR INITIAL)

17. RATE

18. PAY GRADE

19. SSN

20. EVALUATION COMMENTS: (Include verbal expression and services to shipmates. Describe what ratee accomplished (or failed to accomplish) or what resulted from ratee's performance.)

21. JUSTIFICATION COMMENTS: (Use only to document any marks in the TOP/BOTTOM two columns of the Evaluation Section, blocks 2 thru 8. Avoid the use of adjectives which would simply be parroting the evaluation marks.)

EXCERPTS FROM SECTION 3410150, BUPERS MANUAL

"It is desired that the member's division officer or appropriate petty officer make the initial evaluation. The evaluation shall be based on the specific period of time involved and reviewed for approval through the chain of command." (para. (3))

"The completed (Form) shall be signed by the commanding officer, except that the commanding officer may authorize the executive officer or department head to sign provided such officers are of the grade of LCDR or above, or equivalent grade officer of another service." (para. (9)(b))

"Evaluations must be based objectively on the member's demonstrated performance and his abilities as compared to established Navy standards and the performance of his contemporaries. . . . .It is necessary that a member's shortcomings, such as alcoholism or other unreliability producing deficiencies, be reported. Such deficiencies can be of vital importance in the selection of members for duty assignment, advancement, etc." (para. (4))

"Where memorandum entries of a meritorious or derogatory nature have been made in the service record the evaluation should be corrected by an amount considered appropriate in those traits which pertain to the entry." (para. (12))

"Block (20) shall contain a definite statement as to the member's abilities in self-expression, orally and in writing, and command of the English language.(para. (2))"

SIGNATURE OF RATEE .... has sighted report | SIGNATURE OF REPORTING OFFICIAL | RANK

THIRD CLASS PETTY OFFICER AND NONRATED EVALUATION REPORT
NAVPERS

1. DESCRIPTION OF DUTIES AND ACTIVITIES DURING THIS REPORTING PERIOD.
   (INCLUDE DEPLOYMENTS AND EDUCATIONAL ACHIEVEMENTS)

EVALUATION SECTION

COMPARE RATEE WITH ALL OTHERS OF HIS RATE KNOWN TO YOU.

* ANY MARK IN THE <u>ONE</u> TOP OR <u>TWO</u> BOTTOM COLUMNS REQUIRES INDIVIDUAL JUSTIFICATION IN BLOCK 21.

** APPLICABLE TO PAY GRADE 4 ONLY.

	NOT OBSERVED	EFFECTIVE						UNSATISFACTORY	
		EXTREMELY *	HIGHLY	VERY GOOD	GOOD	ADEQUATE	MARGINAL	MINOR *	SERIOUS *
								SHORTCOMINGS	
2. INDIVIDUAL PRODUCTIVITY	NOB	EXE	HIE	VGO	GUD	ADQ	MRG	UNM	UNS
3. RESPONSIVENESS	NOB	EXE	HIE	VGO	GUD	ADQ	MRG	UNM	UNS
4. RELIABILITY	NOB	EXE	HIE	VGO	GUD	ADQ	MRG	UNM	UNS
5. COOPERATION	NOB	EXE	HIE	VGO	GUD	ADQ	MRG	UNM	UNS
6. DIRECTING **	NOB	EXE	HIE	VGO	GUD	ADQ	MRG	UNM	UNS

	NOT OBSERVED	EXEMPLARY	VERY GOOD	GOOD	ADEQUATE	MARGINAL	MINOR	SERIOUS
7. CONDUCT	NOB	XEM	VGO	GUD	ADQ	MRG	UNM	UNS
8. PERSONAL APPEARANCE	NOB	IMPRESSIVE IMP	VGO	GUD	ADQ	MRG	UNM	UNS

9. CLARIFICATION OF TERMS   RATEE: THE PERSON BEING EVALUATED.   RATE: RATING AND PAY GRADE.

10. EVALUATION ITEMS

   2. INDIVIDUAL PRODUCTIVITY: RATEE'S DEMONSTRATED TECHNICAL COMPETENCE AND OWN WORK OUTPUT, INCLUDING INDIVIDUAL CONTRIBUTION TO GROUP EFFORT, BUT NOT INCLUDING THE WORK OF PERSONS RATEE SUPERVISES.

   3. RESPONSIVENESS: PROMPTNESS, ALERTNESS AND ACCURACY IN CARRYING OUT ORDERS AND ASSIGNMENTS.

   4. RELIABILITY: CARRYING OUT TASKS WITHOUT DIRECT SUPERVISION OR MONITORING.

   5. COOPERATION: PROMOTING HARMONIOUS WORKING RELATIONSHIPS AND TEAM EFFORT.

   6. DIRECTING: INFLUENCING OTHERS TO ACCOMPLISH A JOB. (PAY GRADE 4 ONLY)

   7. CONDUCT: BEHAVIOR, ON AND OFF DUTY, WHICH REFLECTS ON THE NAVAL SERVICE.

   8. PERSONAL APPEARANCE: UNIFORM AND GROOMING, ON AND OFF DUTY, WHICH REFLECTS ON THE NAVAL SERVICE.

IDENTIFYING INFORMATION

11. BEHAVIORAL INFRACTIONS (If other than NONE, explain in block 20. F MAJOR OR FREQUENT M MINOR OR ISOLATED N NONE	12. PERIOD OF REPORT FROM DA MO YR TO DA MO YR MONTHS COVERED
13. SHIP OR STATION	14. UNIT I. D. CODE 15. OCCASION FOR REPORT P SEMI-ANNUAL T TRANSFER M OTHER IF OTHER EXPLAIN IN BLOCK 20.
16. NAME (LAST, FIRST, MIDDLE NAME OR INITIAL)	17. RATE 18. PAY GRADE 19. SSN

20. EVALUATION COMMENTS: (Include verbal expression and services to shipmates. Describe what ratee accomplished (or failed to accomplish) or what resulted from ratee's performance.)

21. JUSTIFICATION COMMENTS: (Use only to document any marks in the TOP/BOTTOM two columns of the Evaluation Section, blocks 2 thru 8. Avoid the use of adjectives which would simply be parroting the evaluation marks.)

EXCERPTS FROM SECTION 3410150, BUPERS MANUAL

"It is desired that the member's division officer or appropriate petty officer make the initial evaluation. The evaluation shall be based on the specific period of time involved and reviewed for approval through the chain of command." (para. (3))

"The completed (Form) shall be signed by the commanding officer, except that the commanding officer may authorize the executive officer or department head to sign provided such officers are of the grade of LCDR or above, or equivalent grade officer of another service." (para. (9)(b))

"Evaluations must be based objectively on the member's demonstrated performance and his abilities as compared to established Navy standards and the performance of his contemporaries. . . . .It is necessary that a member's shortcomings, such as alcoholism or other unreliability producing deficiencies, be reported. Such deficiencies can be of vital importance in the selection of members for duty assignment, advancement, etc." (para. (4))

"Where memorandum entries of a meritorious or derogatory nature have been made in the service record the evaluation should be corrected by an amount considered appropriate in those traits which pertain to the entry." (para. (12))

" For all petty officers, block (20) shall contain a definite statement as to the member's abilities in self-expression, orally and in writing, and command of the English language. (para. (2))"

| SIGNATURE OF RATEE .... has sighted report | SIGNATURE OF REPORTING OFFICIAL | RANK |

USE THIS AREA TO TEST ALIGNMENT (ADJUST TYPEWRITER IF NECESSARY. THIS LINE WILL NOT BE SCANNED.)

ALIGN FIRST CHARACTER IN THIS BOX   TYPE THE WORD "ALIGN" TO REGISTER HERE   → ALIGN

BUPERS USE ONLY   P-   BUPERS USE ONLY

PERFORMANCE EVALUATION SUMMARY

1. UNIT I.D. CODE	2. SHIP OR STATION	3. DATE FORWARDED

	1. SSN	2. NAME	3. PER END MO/YR	4. NOS COVRD	5. TYPE REPT	6. PAY GRADE AND RATE	EVALUATION ITEMS 7.	8.	9.
1	EVALUATION ITEMS (cont.) 10. 11. 12.	13.	14.	15.	16.	DUTY RECS 17. 18.	SPECIAL CODES 19.	20.	
2	1. SSN	2. NAME	3. PER END MO/YR	4. NOS COVRD	5. TYPE REPT	6. PAY GRADE AND RATE	EVALUATION ITEMS 7. 8.	19.	
	EVALUATION ITEMS (cont.) 10. 11. 12.	13.	14.	15.	16.	DUTY RECS 17. 18.	SPECIAL CODES 19.	20.	
3									
4									
5	123-00-0000	WILS	7-72	6	P	4BM3	GUD	HIE	VGO
	GUD NOB ADQ	VGO							
6	124-00-0000	MCCA	7-72	6	P	6BM1	SUL	GOU	SUU
	XEM IMP EEL GOU	EEU				NHNR	NNR		
7	125-00-0000	FERN	7-72	9	T	7BMC	BSO	T30	T50
	T30 T50 T50 T50	T30	BSO	B30		RHNR	RRH	MPN	C
8									
9									
10									
11									
12									

4. TOTAL RATEES ON THIS PAGE
3

CERTIFYING OFFICER

NAME _____   GRADE _____   SIGNATURE _____

Note.-- See next page.

Note.--Illustrative entries in:

Block	Pay Grade Group	Evaluation Items		Duty Recommendations	
		Source Document	Summary Fields	Source Document	Summary Fields
5	1-4	2-8	7-13	---	---
6	5-6	2-9	7-14	10A-10D 10E-10H	17 18
7	7-9	13-22 27-29 33	7-16 19 20	34-37 38-40	17 18

TABLE 9

Criteria for Individual Personnel Actions

Purpose or Eligibility	Pay Grade	Applicable Evaluation Items - Any:	Disqualifying Criteria		
			Marks - Any:	Frequency - Any:	During Past No. of Months
Page 13 Explanation	7-9	Item 13-25	B10, B05 or B01	1	(Anytime)
	5-6	Item 2-9	GOL, UNM or UNS	1	(Anytime)
	1-4	Item 2-B	UNM or UNS	1	(Anytime)
Incompetency	7-9	13. Performance or 21. Directing	B01	2 Consecutive Reports	15
	5-6	2. I. Productivity	UNS	2 Consecutive Reports	12
	1-4	2. I. Productivity	UNS	2 Consecutive Reports	9
Good Conduct Medal	7-9	13. Performance, 16. Reliability, or 1B. Conduct	B05 or B01	1	(Period of Eligibility)
	5-6	2. I. Productivity, 4. Reliability, or 5. Conduct	UNM or UNS	1	(Period of Eligibility)
	1-4	2. I. Productivity, 4. Reliability or 7. Conduct	UNM or UNS	1	(Period of Eligibility)
Honorable Discharge	7-9	13. Performance or 1B. Conduct	B05 or B01	2	24
	5-6	2. I. Productivity or 5. Conduct	UNM or UNS	2	24
	1-4	2. I. Productivity or 7. Conduct	UNM or UNS	2	24
Reenlistment	7-9	13. Performance, 16. Reliability, 18. Conduct, 20. Potential or 21. Directing	B10, B05 or B01	2 in same item	36
	5-6	2. I. Productivity, 4. Reliability, 5. Conduct or 7. Directing	GOL, UNM or UNS	2 in same item	30
	1-4	2. I. Productivity, 3. Responsiveness, 4. Reliability or 7. Conduct	MRG, UNM or UNS	2 in same item	24
Advancement and Preferred Reenlistment	7-9	13. Performance, 16. Reliability, 18. Conduct, 20. Potential or 21. Directing	B10, B05 or B01	2	Equal to ½ TIR for Advancement
	5-6	2. I. Productivity, 4. Reliability, 5. Conduct or 7. Directing	GOL, UNM or UNS	1	Equal to ½ TIR for Advancement
	1-4	2. I. Productivity, 3. Responsiveness, 4. Reliability or 7. Conduct	MRG, UNM or UNS	1	12

Note.--The criteria presented are intended to be more illustrative than substantive. However, specification of any disqualifying marks higher than the bottom three columns of any pay grade group format is unlikely to contribute to raising the quality of that group, but is likely to contribute to inflated marking practices.
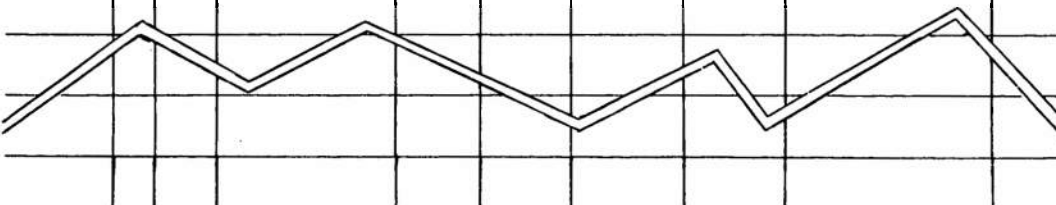
73

TABLE 10

Procedures for Computation of Performance Evaluation Advancement Component
During Transition from Manual to Automated Performance Evaluation System

Step	Example
Automated data	
1. Total all <u>marked</u> evaluation items (coded 0-9 on tape) in candidate's pay grade within <u>minimum</u> period of eligibility (i.e., since specified month/year).	$7+6+5+5+4+7+NOB+6+6+$ $5+5+6+7+4+7 = 86$
2. Compute Performance average ($\overline{P}$) by dividing by <u>N</u> of <u>marked</u> items (i.e, excluding "Not Observed" items).	$\dfrac{86}{15} = 5.73$
3. Compute Weighted Average ($\overline{WP}$) by $\overline{P}(7) - 13 = \overline{WP}$.	$5.73(7) - 13 = 27.11$
4. Total months covered (by marks of step 1) and divide by months of period of eligibility for Adjusted Weight (AW).	$\dfrac{12}{36} = .33$
5. Multiply step 3 by step 4 ($\overline{WP}$ X AW).	27.11 X $.33 = 8.95$
Manual data	
6. Unit commands submit NAVPERS 792 average ($\overline{PE}$) for marks within period of eligibility.	3.80
7. Compute weighted average for NAVPERS 792 ($\overline{WPE}$) by $\overline{PE}(50) - 150 = \overline{WPE}$.	$3.80(50) - 150 = 40.00$
8. Subtract step 4 from the numeral 1 (1-AW) for Adjusted Manual Weight (AMW).	$1 - .33 = .67$
9. Multiply step 8 by step 7 (AMW X $\overline{WPE}$).	$.67$ X $40.00 = 26.80$
10. Sum step 5 plus step 9.	$8.95 + 26.80 = 35.75$

TABLE 11

Revised NAVPERS 601-9 Enlisted Performance Record

1	2	3	4	5	6	7	8	9	10
DATE	REASON	RATE ABBREV.	Pay Grade	Evaluation Items				SHIP OR ACTIVITY	INITIALS
			7-9	Perf. of Duty	Relia-bility	Conduct	Directing	Potential		
			5-6	Ind. Prod.	Relia-bility	Conduct	Directing	-----		
			1-4	Ind. Prod.	Relia-bility	Conduct	Respon-siveness	-----		
10 JAN 64	P	BM3		GUD	VGO	ADQ	HIE	-----	USS CHIEF JOSEPH (DD 1004)	JDJ
10 APR 68	P	BM1		SUL	SUU	XEM	EEL	-----	USS POPOCATEPETL (AE 42)	HFS
16 JAN 69	P	BMC		B50	T30	T50	B50	T30	NAVCRUITSTASDIEGO	STU

EVALUATION MARK CODES

Pay Grades 7-9		Pay Grades 5-6				Pay Grades 1-4	
Mark	Code	Mark	Code	Mark	Code	Mark	Code
Bottom 1%	B01	Unsat-Serious	UNS	Stands out from virtually all others (lower)	STL	Unsat-Serious	UNS
Bottom 5%	B05	Unsat-Minor	UNM			Unsat-Minor	UNM
Bottom 10%	B10	Good (lower)	GOL	Stands out from virtually all others (upper)	STU	Marginal	MRG
Bottom 30%	B30	Good (upper)	GOU			Adequate	ADQ
Bottom 50%	B50	Typical Extremely Effective (lower)	EEL	Exemplary (Conduct only)	XEM	Good	GUD
Top 50%	T50	Typical Extremely Effective (upper)	EEU	Impressive (Appearance only)	IMP	Very Good	VGO
Top 30%	T30					Highly Effective	HIE
Top 10%	T10	Superior to most (lower)	SUL	Not Observed	NOB	Extremely Effective	EXE
Top 5%	T05					Exemplary (Conduct only)	XEM
Top 1%	T01	Superior to most (upper)	SUU			Impressive (Appearance only)	IMP
Not Observed	NOB					Not Observed	NOB

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13. ABSTRACT

The traditional method of acquiring on-job performance evaluation marks for enlisted personnel is deficient in two respects: (1) the scales do not adequately differentiate among actual levels of ratee performance, and (2) the manual forms and procedures do not permit timely processing and application of the data for important individual personnel actions. New formats and scales tailored to two specific Pay Grade groups, 5-6 and 1-4, were developed to deal with these deficiencies. Although automated processing equipment was used, the primary thrust of the project was on substantive, rather than hardware, considerations.

Alternative marking scales and coding procedures for each pay grade group were experimentally administered to a fleet sample. Two alternative Optical Character Reader (OCR) forms, a mark-sense and a character-sense mode, were used to test the automated capability.

All experimental forms provided distributions of marks substantially more discriminating than the present operational form, especially for the Pay Grade 5-6 group. Of special concern was the inflationary and stultifying effect of the present coding procedure, even on the new forms. Preparation time, discrepancy rate, and processing time were much higher for OCR than OMR type documents. Specific recommendations are provided for substantially improving both the source document design and the system design.

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14. KEY WORDS	LINK A		LINK B		LINK C	
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